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Twenty-First Christmas Meeting
LABORATORY SECTION
Toronto, December 14 and 15
Royal York Hotel and Hospital for Sick Children

●

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TWENTY-FIRST ANNUAL

CHRISTMAS MEETING

OF THE

LABORATORY SECTION

TORONTO

DECEMBER 14 and 15, 1953

ROYAL YORK HOTEL

and

HOSPITAL FOR SICK CHILDREN

* * *

Directory of Sessions

MONDAY—ROYAL YORK HOTEL

9.00—Registration
9.30—First Session
12.30—Buffet Luncheon
2.10—Second Session

TUESDAY—HOSPITAL FOR SICK CHILDREN

9.20—Third Session
1.00—Luncheon
2.30—Fourth Session
4.30—Tour of the Hospital

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CANADIAN PUBLIC HEALTH ASSOCIATION

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Canadian Journal of
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VOLUME 44 TORONTO, NOVEMBER 1953 NUMBER 11

Prepaid Diagnostic Services in Manitoba

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THE FIRST Laboratory and X-ray Unit in Manitoba was established in Dauphin in March, 1947, as part of the Manitoba Health Plan, whose author and maker was Dr. Fred Jackson. The six and one-half years' experience since that time has only served to emphasize the wisdom and foresight of that planning. The plan comprised four main features: Local Health Units, Diagnostic Services, Medical Care Districts, and Hospital Districts. The Diagnostic Services therefore are but a part, although a very essential part, of the overall plan for our province. They are, however, of special significance in their own right, and can stand the light of appraisal and examination without reference to other features of the plan.

Something of the philosophy behind the provision of these services was expressed by the Minister when the plan was first introduced to the people of Manitoba in 1945. He said: "No doctor can render his best service or practise medicine in a modern and scientific manner unless he has, readily available, diagnostic facilities both of the X-ray and laboratory type. If serious illness is to be prevented, it must be diagnosed in its early stages; if it is to be cured, the exact nature of the illness must be determined. In either case diagnosis is all-important, and effective diagnosis is impossible without modern facilities. I think it is also true to say that the urban practitioner, where these facilities are now available, finds that as a matter of economy, a very large number of his patients cannot afford to pay for the necessary diagnostic procedures, whereas as a matter of good medical practice, such tests are an absolute

Presented at a luncheon session during the forty-first annual meeting of the Canadian Public Health Association, held in conjunction with the fourth annual meeting of the Ontario Public Health Association, in Toronto on October 1 and 2, 1953.

necessity. Our plan proposes that eventually every physician in the Province would have, close at hand, procedures available to help him make a diagnosis in any given case, without any limitation because of their cost to the patient."

To give some understanding, as a background, of how these services are set up, permit me to review very briefly, step by step, what happened in this first Unit at Dauphin. The municipalities in this rural area, five in number, with a population of about 18,000, had previously formed a Local Health Unit, although this is not now a prerequisite. Participation in the diagnostic services, like all other features of the plan, is voluntary. The municipalities requested, by resolution of council, that they also be included in a Diagnostic Unit, as it was then called. This request having been approved by the Department, each municipality was then required to enter into an agreement with the Province that they would participate in this Unit for a minimum period of two years, following which they could withdraw if they so desired, at the end of any year. The agreement also provided that the municipalities would share in the cost of operation of the Unit, with the provincial government, on a ⅓–⅔ basis, the ⅓ of the cost being distributed in accordance with the population of the included municipalities. These agreements being completed, and approved by the Board of the Local Health Unit, which also administers this service on the local level, the machinery was set in motion to provide the services.

First, the equipment: Dauphin General Hospital had an old obsolete X-ray machine and a very minimum of laboratory equipment. This was purchased from the hospital, as was also some diagnostic equipment which the local doctors had in their offices, as a means of reimbursing them for capital expenditures which would no longer be required. As it became necessary or advisable, this equipment was replaced with modern facilities, and Dauphin now has an efficient 200 ma X-ray Unit, an electrocardiograph, a B.M.R. machine, autoclave, and complete laboratory equipment for the work required. Space facilities in which to operate the Unit were at first rented from the hospital, but these soon proved to be inadequate. As the hospital was well established and no immediate building program was planned, the Department constructed a building adjacent to the hospital and connected to it by tunnel. This building now houses our health unit, diagnostic unit, and the district headquarters of our welfare services. I should mention that in all other areas the laboratory and X-ray services are housed in the district hospital, on a space-rental basis.

Second, the personnel: Technicians qualified in both laboratory and X-ray procedures were provided by the Civil Service of the Province, their appointment being subject to approval of the local board. These personnel were trained in our own provincial laboratories under a training system started in advance of this program and still continuing. Dauphin now has three such technicians working full time in the diagnostic service, and one full time doing public health laboratory work.

How Does it Operate? The prepaid service is available to all residents of the included municipalities. In order that such qualified persons may be

identified, they are issued with identification cards through their municipal offices, which are presented upon demand. Now Dauphin Hospital also serves an area much greater in extent than the immediately surrounding diagnostic unit area, and the Unit also undertakes to provide the complete laboratory and X-ray service for the hospital to all patients from these outside districts. In these cases, the hospital collects the usual fee for services rendered, and reimburses the Unit for only the actual cost of providing the service.

How Does a Patient Residing in the Unit Area get the Prepaid Services? First, it is available only on written order from his private physician. If his doctor considers that either laboratory or X-ray tests are required, the patient takes the requisition to the Unit office, where technicians carry out the necessary procedures. The reports are sent directly to the patient's doctor. All laboratory examinations, including E.K.G. and B.M.R., are free of direct charge to the patient, but there is a nominal service charge of $1.00 for the first X-ray film and an additional charge of 25c for each extra film up to a maximum of $5.00 for any one illness. This was originally intended as a deterrent against possible abuse of the X-ray, but has been found to be of doubtful value in that regard.

What Services are Available? All routine radiological examinations, and quite a comprehensive, although not complete, list of laboratory tests. These include all routine examinations of urine, blood, cerebrospinal fluid, gastric contents and stool, and bacteriological examination of nose and throat, etc., according to a list approved by the Director of Provincial Laboratory Services. In addition to the above, estimations of basal metabolic rates and tracings in electrocardiography are carried out at the local unit. All samples for serology, tissue biopsy, and other of the more complex examinations are collected by the local unit for preservation and transmission to the central laboratory.

Consultation Services. The Dauphin Unit is visited by a qualified radiologist one full day each week. On this day all patients referred for gastro-intestinal examination, gall bladder visualization, pyelograms, etc., are examined directly by the radiologist. He also interprets all routine films taken by technicians during the week and reports directly to the attending physician. The Director of the Provincial Laboratory and his staff visit the Unit regularly to advise on laboratory procedures and to ensure quality of work. The E.K.G. tracings are mailed daily, or as required, to a cardiologist in Winnipeg for interpretation, and reports either mailed or wired as indicated. A senior technician in the Department also visits the unit at intervals to maintain equipment and a high standard of technical work.

How is the Service paid for? All salaries, supplies and expenses are first paid for by the Health Department. Each municipality is billed quarterly for its proportioned share of one-third of the net operational costs, and this in turn is included in the general taxation of the ratepayers. All costs for initial equipment are borne by the Province, without direct participation of the municipalities, but depreciation charges are included in the operational costs.

So much for these details. How has it worked out in actual practice? It was very soon evident that these services filled a definite need in the community,

because within a few months the volume of work done increased to three times that previously carried out in the Dauphin hospital, and has been maintained at a constantly increasing level ever since. By the end of 1948 it could be stated in our annual report that "no feature of the Health Plan is of more significance than the provision of diagnostic services; no part gives more direct benefit to patient and doctor, nor is more appreciated by those receiving the service". Very soon the Department began receiving requests from other areas to provide similar services. It became a prime factor in the development of hospitalization plans for any district hospital, and since 1948 no district hospital has been built (and we have built about 15 of them) without making full provision in the plans and specifications for this service. Our expansion has been limited only by the availability of qualified technical and professional staff, and this has been a very high hurdle to cross. We have, however, made some progress. A second unit was opened in Selkirk in 1949, and a third in Virden in 1952, the three combined serving a rural population of 66,000 persons. We have resolutions from literally dozens of municipalities asking that this service be extended to their residents. As a preliminary step in this direction, the Department, through the assistance of Federal Health Grants, has provided X-ray and some laboratory equipment in 15 additional district hospitals, and smaller portable X-ray units in about 20 more Medical Nursing Units or small cottage hospitals. The Boards of these districts have all agreed in writing that they will become part of a Laboratory and X-ray Unit when such prepaid services can be provided. In the meantime, the equipment is operated by the hospital boards, on a modified fee-for-service basis, sufficient only to meet all operating costs. The provision of this equipment has had the immediate benefit of raising the standard of service which these hospitals can render, and has lowered their operational costs by eliminating large items of expenditure.

Now let us look at a few figures which may explain why there is such a demand for this service. I will report only on the two units at Dauphin and Selkirk, as the third has not yet been in operation for a full year. The statistics are for the calendar year 1952 and for simplification are quoted in round numbers. These units have a combined population of 42,000. During the year a total of some 9,000 X-ray examinations and 14,000 laboratory tests were carried out, or an average of about 750 and 1,200 per month respectively. This indicates that approximately 180 persons per 1,000 of the qualified residents had some X-ray services during the year, and about 280 per 1,000 required some laboratory tests. The total cost of providing these services, including all salaries, consultation fees, supplies, travelling expenses, rental and depreciation, was just under $35,000, or a per capita gross cost of 84¢. If from this is deducted the sum of $6,000 which the patients themselves paid as a direct service charge for X-ray and other revenues from patients outside the area amounting to $1,600, it leaves a net operational cost, sharable by the municipalities, of approximately $27,400, or a net per capita cost, payable through taxation, of 66¢. This means, therefore, that the residents of these areas paid through their taxes (apart from the small service charge to patients receiving

the service) only an average of 22¢ for last year—the province as a whole paying the balance of 44¢ per capita.

Now what value did they get for their money? These services, when conservatively computed at specialist rates established by the Manitoba Medical Association, would have cost the patients a total of $90,000 for X-ray and $35,000 for laboratory tests, a total of $125,000. This amounts to an average of $3.00 per capita. Compared to the gross cost of the prepaid service of 84¢ per capita, it is well over three times the latter figure. Please remember this comparison the next time you hear the statement that Government-sponsored health services are necessarily waseful and extravagant.

But it would not be fair if I left you with the impression that all has been sunshine in the administration of this plan. It is true we had many administrative difficulties to solve, and we still have some headaches. For example, it is recognized that these services cannot fill their required function without consultant services of a high professional calibre, and to meet these requirements without increasing operational costs beyond an economically feasible level, is a problem of first importance. We have still not solved it. Radiologists and pathologists can demand in the professional field a remuneration much out of line with top civil service salary ranges; at least this is true in Manitoba. We have, therefore, entered into contracts with these personnel for professional services rendered, at either a daily or monthly rate. We are still finding it difficult to provide sufficient consultant staff. Technicians have also been a problem. We have attempted to fill this gap by training our own within the department. We have a 2-year course which qualifies these personnel in both laboratory and X-ray procedures to the extent that they can write their certifying examinations. But our training facilities are limited and we cannot as yet keep up with the demand.

Nor have we been above adverse criticism. Criticism is something one can avoid by saying nothing and doing nothing, but hardly otherwise. While it is still true to say that no service porvided by our department has been more directly appreciated by those receiving the service, such a general affirmative statement cannot be made regarding the medical profession. We were pioneers in this field of work in Canada, and our experience was followed with critical interest, and sometimes with the eye of suspicion, by our medical confrères. In fact, we must confess that as late as 1949 the Manitoba Medical Association went on record as stating that the provision of diagnostic services under our Act was detrimental to the overall health care of the people of Manitoba, and officially opposing the plan. While granting that this opinion was sincerely given, we have never admitted that it was fully justified. It is nevertheless worthy of examination. To what features did the doctors object? Well, first they said that there was too much central control by the Health Department, and not enough flexible authority granted to the local people in administrative details—that, for example, changes in personnel, equipment, or procedures to fit a local situation could not be made without the delay of government red tape and approval of an arm-chair official in Winnipeg. As I was that official, this naturally hit home. Now we make sure that the local

Medical Director and Health Board can make these necessary decisions, subject to approval only when it affects changes in overall uniform policy.

Secondly, they said it tended to disrupt rather than cement the doctor-patient relationship. There was the impression in the minds of some patients that the unit, and not the doctor, was making the diagnosis, and that it should not be necessary first to see the doctor for an examination and later report to him for the laboratory findings. This entirely unwarranted attitude of a small proportion of the public has been largely overcome by educational effort, and to further counteract any such tendency, the very name of the Unit has been changed from "Diagnostic Unit" to "Laboratory and X-ray Unit".

Thirdly, the Association's statement said that the service was of benefit only to doctors living in the actual centres where the equipment was located, and that the plan had a tendency to take patients away from other doctors practising in the neighboring small towns, because the patients would go to the district centre and consult the doctors there for their X-ray examinations, etc. This has never been true to any great extent, and has been largely overcome by providing small X-ray units or sub-stations in practically all the smaller Medical Nursing Units of the areas for the convenience of both patient and doctor. The films or laboratory specimens are referred to the Unit headquarters, for the expert consultant service.

Fourthly, they said that the technicians, being civil servants, would follow the traditional role attributed to us by some of the public, and attempt to work only the hours of 9 to 5, without regard to the needs of either patient or doctor. This is entirely a fallacy, as in every unit a duty roster is maintained covering much longer hours, and for emergencies at all hours including holidays and Sundays.

Fifthly, they said it caused unfair pressure to be placed on the doctors, because, as one doctor put it in a published statement, "When a patient pays through taxes for certain services, he immediately feels that he has certain rights to these services. But the knowledge that he has these rights puts a strain on the relationship between the doctor and himself. When he consults his doctor and is examined, he suggests very often that he should go through the clinic and 'get the works'. Perhaps all he needs is a chest plate or a sedimentation rate, but he feels he 'may as well have my stomach pumped or X-rayed and a heart test done'. If the doctor suggests these things are unnecessary, and he honestly persists in this stand, he may find the patient consulting another doctor who feels that the patient is entitled to these tests, and that it is not his responsibility to curb their desires." It is true that there was, and probably always will be, some abuse of these facilities when first introduced on a prepaid basis, but this in practice has now very largely disappeared. We are, on the whole, receiving excellent cooperation from the doctors. We have on occasion maintained records of the percentage of normal and abnormal findings on patients from each doctor in an area. When it could be shown that Dr. A. had a very much higher proportion of normal findings on patients he had referred than did his colleagues in the same area, and this was pointed out to him, the situation was rapidly corrected.

These were the main objections given by the profession. The statement was taken seriously, and as a result a special committee was set up by the Minister to investigate and appraise the plan. After thorough study, the committee, while directing attention to certain administrative defects, recommended that the diagnostic services be continued and expanded. I am happy to report that the Medical Association, at their next annually held meeting, officially accepted the report of this committee and that there has been no further organized opposition to the plan. We have thus passed through the birth pains of a new idea and can look forward to the child's developing a normal and useful life. True, we have made mistakes, but there is nothing final about a mistake, except its being taken as final.

The plan for provision of prepaid laboratory and X-ray services is, we think, well established in Manitoba. Its extension depends only on availability of qualified staff. We feel it has already demonstrated that it can meet its original objectives. It has raised the standard of practice in these rural areas. It is an inducement for the young and modern medical practitioner to practise in rural areas. It has raised the standard in rural hospitals. It has provided the advantages of modern scientific diagnostic services, close at hand, at a cost much less than would have been possible otherwise. It is a public health measure which is here to stay.

We feel we are fortunate in thus being in a position to take some immediate advantage of the new Federal Health Grant for laboratory and radiological services, and have already done so. We can extend our plan as rapidly as personnel will allow, to the advantage of practically all the population, both professional and lay. In the final analysis, the only persons who will not directly benefit are the radiologists and pathologists themselves who are in private practice. These constitute less than 2% of the medical profession.

Here, to my mind, is our great problem. Without these specialists we cannot function. They must continue to be the backbone of any such service, whether it be along the lines I have described, or some other cooperative scheme for bringing these services to the people at a price they can afford. It may well be that other plans proposed by the profession may be the ultimate answer, and we should be prepared to examine carefully any such sincere proposals. No uniform solution may be possible for all parts of Canada, but in the end, surely the greatest good for the greatest number must prevail. The stimulus given by the recent grant of over four million dollars makes this a public health program which commends itself for your consideration.

A Winter Outbreak of Poliomyelitis in Tatamagouche, Nova Scotia, 1952

ARTHUR F. W. PEART, M.D.,[1] HARLAND LAVERS, M.D.,[2] and F. P. NAGLER, M.D.[3]

DURING March 1952 a severe localized outbreak of poliomyelitis occurred in the village of Tatamagouche, on the northern coast of Nova Scotia. The outbreak occurred midseason between winter and spring, at which time snow banks were melting and localized flooding was everywhere.

Features of the epidemic included the unusual seasonal incidence, a paralytic attack rate of 1.9 per cent of the population, and the concurrent appearance of mild respiratory and gastro-intestinal "polio-like" illness, which affected approximately 47 per cent of the 628 inhabitants. Multiple cases in households were also a feature of the outbreak. A total of twelve cases were diagnosed, one of which was fatal.

Population Characteristics

Tatamagouche is largely a farming community of moderate socio-economic status. The population of the village is composed of the usual cross-section of businessmen, skilled and unskilled labourers, teachers and professional persons that would be found in most communities of this kind. Lobster and other fishing supplement the farm income in many cases. The nearest cities are Truro (pop. 10,750), which is situated 40 miles south, and Pictou (pop. 4,400), which is 35 miles to the east. Moderate traffic passes through the village going east, west and south. Truro is the shopping centre for most people in the community.

Onset of the Outbreak

The first cases of paralytic poliomyelitis exhibited prodromal symptoms on March 8th, 9th, 10th, 12th and 16th, respectively. Paralytic symptoms, although not pronounced, went unrecognized in most cases until March 17th, when the doctor was called, and poliomyelitis was suspected. This diagnosis was confirmed the same day in consultation with the Medical Officer of Health. Other cases became evident on March 17th and 20th. It is probable that poliomyelitis would have been suspected earlier except for the season of the year, when cases of poliomyelitis are unusual. By March 20th a certain amount of hysteria had gripped the community and a further number of suspected cases were reported. Of these, three other paralytic cases developed, with

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dates of onset on March 24th, 25th, and 27th. The last case had bulbar and respiratory paralysis and was immediately placed in an iron lung. Figure 1 shows the dates of onset of the twelve paralytic cases.

At this stage, public anxiety had reached such a point in the community that pressure was exerted on the Board of Health to close the Public and High Schools. A request for special assistance was also sent to the Department of National Health and Welfare. A study team was subsequently sent from Ottawa and Toronto to assist in the investigation of the outbreak.

Clinical Manifestations

Most of the paralytic cases had an insidious onset with general aches and pains, headache, and respiratory and/or gastro-intestinal symptoms. The following selected case histories are representative of those affected.

Case History 1: On March 8th, C.D., a seven-year-old boy, complained of headache, chills, nausea and vomiting. General symptoms continued until March 12th, when he developed soreness in the muscles of his chest, back and legs and subsequently lost the function of his lower extremities and to a lesser extent of his upper extremities.

Case History 2: On March 11th, P.H., a five-year-old boy, complained of being cold, with headache and a temperature of 102°F., and developed stiffness in the neck. General symptoms persisted until March 15th, when he fell on the floor while getting out of bed in the morning.

Case Histories 3 and 4: On March 16th, J.J., a ten-year-old girl, and her sister L.J., a nine-year-old girl, developed general symptoms. J.J. was flushed, occasionally vomited, complained of general malaise, and had a temperature of 100°F. This continued intermittently until March 22nd, when she complained of pain in the legs and arms. L.J. had similar general symptoms with considerable drowsiness. She seemed to improve up to March 17th, but on March 21st became dizzy, with chills and pain in the neck, and fell while walking.

Case History 5: On March 27th, H.P., a fifteen-year-old boy, complained of general malaise and fever. Two days later he woke up early in the morning complaining that something was caught in his throat, and tried to vomit. Later that day, he had difficulty in breathing and his left arm was weak. He subsequently developed considerable difficulty in breathing but was able to swallow. He was placed in an iron lung as soon as possible and had a rather stormy time. Although he had made some improvement up to August 1952, he finally succumbed to his illness.

Table I briefly outlines the muscular involvement of paralytic cases. This involvement has been graded arbitrarily into two categories, slight, and moderate to severe. Paralysis and spasm are indicated separately. It can be seen from this table that the muscular involvement was located chiefly in the back, neck, abdomen, and, to a lesser extent, the lower extremities. It is also of note that fairly good recovery has resulted in most cases.

MUSCULAR INVOLVEMENT *

OF CASES ADMITTED TO POLIO CLINIC HALIFAX, N.S.

TABLE I

Order of Onset Cases & Initials	Age	Sex	Date of Admission	Upper Extremities			Neck	Back	Lower Extremities		Resp.	Abdomen	Bulbar	Results of Examination August, 1952
				Rt. Arm	Lt. Arm	Rt. Shoulder			Rt. Leg	Lt. Leg				
1 C.D.	7	M	Mar 18	Para.	Part Para.	Para.	weak	very weak spasm	very weak spasm	very weak spasm	slight weak spasm	weak		Still has slight limp
2 Mrs. D.J.B.	30	F	Mar 18	-	-	-	-	++ 0	-	-	-	+ +	+ +	Slight paralysis left side throat
3 D.A.M.	12	M	Mar 19	+ +	+ +	+ +	+ +	+ + 0	+ 0	+ 0	-	-	-	Rt. gastrocnemius, peroneus, anterior tibialis still weak
4 F.H.	8	M	Mar 18	-	-	-	+ +	+ + 0	+ + 0	+ + 0	-	+ +	-	Abdominals still very weak
5 A.H.	2	F	Mar 18	-	-	-	+ +	+ + 0	+	+ 0	-	+ +	-	Planter flexors still tight & abdominals weak
6 L.I.J.	9	F	Mar 22	-	-	-	+ +	+ + 0	-	-	-	+ +	-	Posture better Able to sit up without assistance
7 J.A.J.	10	F	Mar 22	-	-	-	-	0 +	+ 0	+ 0	-	+ +	-	Back much stronger Abdominals still weak No tightness back or hamstrings.
8 Mrs. F.M.	21	F	Mar 26	-	-	-	-	0 +	-	-	-	+ +	-	Walking well Fitted with Spencer Support
9 R.F.B.	9	F	Mar 22	-	-	-	-	+ + 0	+	+	-	+ +	-	Appears normal
10 R.C.H.	9	F	Mar 25	-	-	-	+ + 0	+ + 0	+ 0	+ 0	-	-	-	Walking much better
11 G.H. ##	36	M	-	-	-	-	-	pain 0	pain 0	pain 0	-	-	-	##
12 H.F.###	12	M	Mar 27	+ +	+ +	+ +	+ + 0	+ + 0	+ +	+ +	+ +	-	-	Still requires respirator at intervals. Function returning in muscles of arms & legs. Muscles still tight

* Muscular Involvement:

Paralysis:
Slight ..... +
Mod. to severe .. ++
Spasm: 0

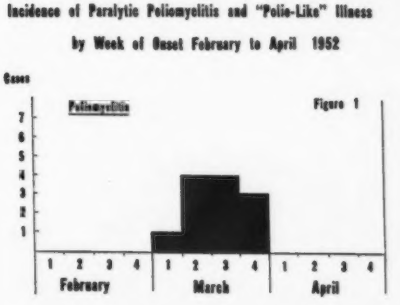
Treated at home.

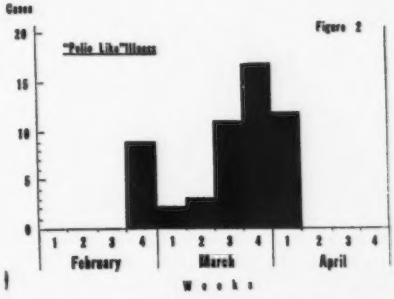
Has died since examined in August, 1952.

Epidemiology

Tatamagouche has experienced the usual endemic incidence of poliomyelitis in previous years. However, Dr. D. Murray, who has practised for forty years in the village, had not previously seen such a severe outbreak of this kind in this locality. As in most poliomyelitis epidemics, the source of the outbreak is not known. The most likely source, however, is the city of Truro, which had a fairly extensive epidemic of poliomyelitis during the previous summer and fall, when 40 paralytic cases were reported. The last reported case in Truro was in November 1951. Paralytic poliomyelitis had also been reported in other parts of Nova Scotia earlier the same winter, with one case in January, two in February, and one the first week of March, 1952. All of these were reported at places many miles away, and no known contacts were established between them and the Tatamagouche cases.

It is of interest that the province of Prince Edward Island, located approximately 25 miles north of Tatamagouche across Northumberland Strait, had experienced a much higher than usual incidence of poliomyelitis during the previous winter of 1950–51 (1). Twelve cases were reported in Prince Edward Island in December, ten in January, and two in February. Up to a few years ago a high incidence of winter poliomyelitis would have been considered unusual. However, in recent years (2, 3, 4) a number of winter poliomyelitis epidemics have been reported. The unusual seasonal incidence has ceased to be such a novelty. There would seem to be little doubt, however, that the low winter incidence of poliomyelitis of former years has more recently undergone wide fluctuations in its seasonal distributon.



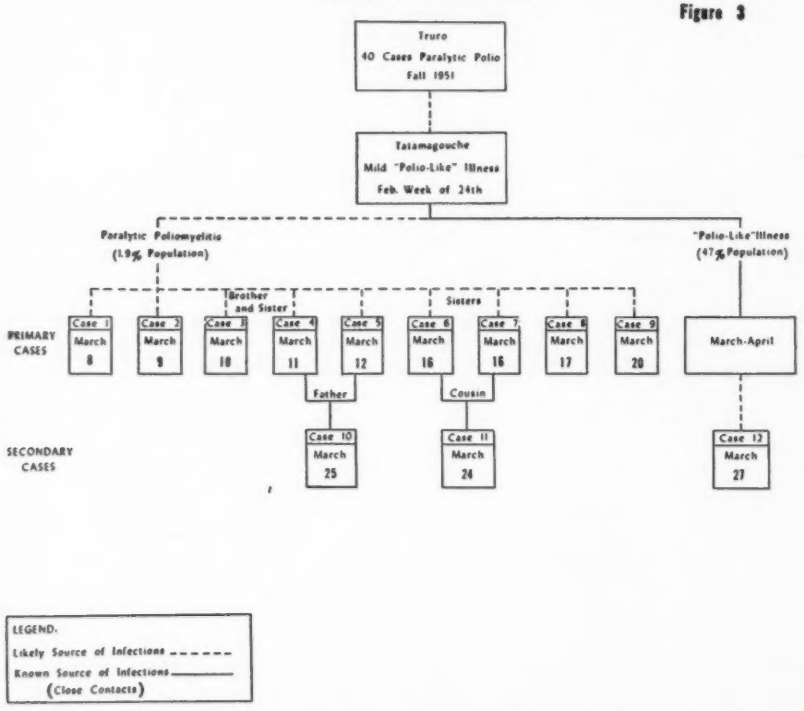


Although this epidemic was not introduced to the community by any recognized sentinel case from which other cases originated, it is known that a mild type of "polio-like" illness was prevalent in the population just before and during the onset of paralytic cases. A survey of approximately 20 per cent of the families (116 persons) in Tatamagouche, which included close family contacts as well as members of neighbouring families, indicated that 54 individuals (46.5%) in these families complained of respiratory, gastro-intestinal or febrile illness in February, March and April. These illnesses have for convenience been termed "polio-like". The weeks of onset for such illnesses have been illustrated in Figure 2. It is of note that a number of persons suffered from "polio-like" symptoms the last week of February. An interval of about two weeks elapsed between the onset of these illnesses and the first paralytic poliomyelitis cases.

Of the twelve paralytic cases that developed, six occurred in two households (three each). One secondary paralytic case developed in each of these households. Eight of the twelve cases, therefore, resulted in two households. It was also established that frequent contact had occurred between some of the other cases, for example, Cases 4 and 5 were habitual visitors to the home of Case 2. In addition, much daily or regular contact had occurred among members of the village through school, church and social functions, so that ample opportunity was given for most members of the community to become infected. Figure 3 provides a diagrammatic scheme of likely source and mode

Primary and Secondary Cases of Poliomyelitis
Showing Known and Probable Sources of Infection
Tatamagouche, N.S., 1952.

Figure 3



of spread of paralytic poliomyelitis and "polio-like" illness during the epidemic period. For lack of more precise knowledge, Truro has been considered the most likely source from which the epidemic originated. Whether or not "polio-like" illness continued throughout the winter months is not known. However, factual data indicate (Figure 2) that mild "polio-like" illness was prevalent the last week of February, 1952. If the present concept of poliomyelitis epidemiology is true, this illness could very well have been mild

poliomyelitis. This assumption is supported by the evidence that the paralytic cases were recognized at the same time, when the "polio-like" illness reached its peak. A similar peak occurred for the paralytic cases. This is further supported by the knowledge that family contacts or close neighbour contacts had "polio-like" symptoms before the onset of paralytic cases. It would appear (see Case 12, Figure 3) that paralytic poliomyelitis resulted from exposure to mild "polio-like" illness.

The age and sex distribution was not unusual, although the number of paralytic cases was small. Eight of the twelve cases were under fifteen years of age. Of those who developed "polio-like" symptoms, 58 per cent were under fifteen years of age. The distribution of paralytic cases by sex was five male and seven female cases. It was of interest to note that of the 170 households in Tatamagouche 80 (48 per cent) had children under fifteen years of age, and approximately 40 per cent of the people (1951 census) were under 25 years of age. Therefore, approximately two-thirds of both paralytic and "polio-like" symptoms occurred in the younger age groups.

Other factors that were considered during the investigation were the pollution of water supplies, open sewage disposal systems, fly contamination and milk supply. None of these was incriminated as probable sources of infection. However, at the time of the epidemic there was a good deal of flooding from the rapidly melting snow which, no doubt, could have contaminated water supplies by overflowing septic tanks and pit privys. Sewage disposal was for the most part by pit privy, sanitary bucket or septic tank.

Summary

A small but severe explosive epidemic of poliomyelitis has been described which occurred in the late winter, during March 1952, at Tatamagouche, Nova Scotia.

Twelve paralytic cases were reported in a population of 628, an attack rate of 1.9 per cent or 1,900 per 100,000 population.

Mild "polio-like" illness which could have been poliomyelitis occurred at the same time as the paralytic cases, with an attack rate of 47 per cent of the population. There was much close contact between many of these cases and those which developed paralysis.

Approximately two-thirds of both paralytic poliomyelitis and "polio-like" illness occurred in the younger age groups. The sex distribution was about equal.

Of the twelve paralytic cases, paralyses and muscular spasm were located chiefly in the muscles of the back, neck, abdomen and to a lesser extent in the lower extremities. Two bulbar cases occurred, one of which had paralyses of the respiratory muscles and was confined to an iron lung. Satisfactory clinical recovery has occurred in the majority of cases. One of the bulbar cases succumbed several months after onset.

Laboratory examination of stool specimens from paralytic cases showed the presence of the Brunhilde type of poliomyelitis virus (5). No Coxsackie virus

strains were recovered from these specimens or from stools obtained from non-paralytic and contact cases.

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Letter from Great Britain

Co-operation in the Health Services

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Dear Editor,

IN THIS LETTER I shall seek to examine some of the difficulties of working together in a complicated service for comprehensive health care such as we now have in Britain. Co-operation in the Health Services: What does this entail? What does it mean to success? How far can it succeed with the present framework?

What do we mean by the word "co-operation"? That ugly word that word lovers would almost certainly repudiate, signifies joint operation, combined effort or labour, a uniting together of individuals or bodies for the common good. But in the sense that we are going to use it it implies more. It entertains at least the possibility of a certain unwillingness of individuals to associate one with another, and, in consequence, an idea of effort to overcome natural inclination. It suggests, further, that the exertion needs to be continuing and, lastly, it implies that the goal can be achieved more by personal effort than by rigid formulae.

The term "Health Services" implies all those measures to secure health and to treat sickness that are laid down or implied by the statute of 1946. This is a first ingredient. Most people would limit the definition to this. It is, I believe, a cardinal error to make our definition too narrow. It is part of our too easy assumption that the social and environmental factors contributing to illness are of no importance. In fact, it may be of more importance that a sick man's house should be put in order than where or when he goes to hospital. Our definition must include all those measures to secure the health of the community which have been based in other public health statutes, notably the Acts of 1936 and 1937. Are we to stop there? No, because there is much that neither the National Health Service Act nor the Public Health Statutes cover. There is, for example, the school health service operated under the Education Act of 1944, and the factory health service under the Factory Act of 1937, and many regulations. Such services for the health of special groups of the population must also be included. Then I would like to take our term "Health Services" so widely that it includes the allied measures created with the '46 Act to overcome the five giants of Lord Beveridge—Sloth, Squalor, Ignorance,

Want, and Disease. This picturesque idealism included the National Assistance Act, 1948, the Children Act, 1948, the National Insurance Act, 1946, and the National Insurance (Industrial Injuries) Act, 1948. This may at first seem to be a multi-headed hydra, but then co-operation is a knight in flashing white armour which should be capable of slaying any beast.

With this idea of the Health Service in our mind and this definition of the term co-operation, we should next ask ourselves three questions. Why do we need co-operation? What can co-operation achieve? How are we to secure it?

Why do we need co-operation?

The first of three reasons why we need co-operation is what I shall call for want of a better term "the essential unity of health problems". Whether we think in terms of the individual or the group, we can find no true dividing line between health and its deviations, which justifies regarding the problems as the subject of separate and distinct consideration. This is true of the prevention of disease and its cure; it is true also of the social and clinical aspects of disease. They are both essentially one and the same problem. A health department seeks to promote health by supervision and by health teaching in schools, or at maternity and child welfare centres, in industry, or among the aged. Can you imagine that this is to be done without regard for the work of the family doctor or the hospital physician? If we have people in hospital to diagnose and treat, we know that they must return to the outside world; adults will find themselves again at work, and children will once more be at school, where the significance of their illness must be appreciated. Such examples as these might be multiplied many times. Were it not for the tremendous significance which this simple consideration carries for all of us, I should be ashamed to stress such an obvious fact. The realisation of the essential unity of all health problems carries us yet further. Health, whether of the individual or the group, centres on the family; upon the integrity of this biological unit so much depends that we should have constant regard for the effect which all our varied activities have upon it. The need to preserve the family intact is alone sufficient reason for integration of our health activities. The health problems of mother or father when seen in the out-patients' department of a hospital, or the child studied as part of a school health programme, are seldom, if ever, those of mere individuals. Whatever we do for one will need to be seen reflected in its effect upon the family.

The second reason why we need co-operation arises out of the division of responsibilities for various aspects of our national scheme for comprehensive health care. We have in our definition seen how widespread are our health activities and how many different types of authority are concerned in them. Even the 1946 Act itself operates in three parts. Its three parts are just as separated from one another as is the school health service, the factory health service, the welfare service, or the responsibility for deprived children. How can all these services hope to operate effectively unless they operate with common purpose? We have taken the essential step forward which is the natural outcome of the great extension in medical and scientific knowledge.

We have made available to all, virtually without charge, the greater part of what is needed to preserve health and treat sickness. But, as we all know, it takes more than an Act of Parliament to translate into practical effect the thoughts and ideals of our legislation. An Act of Parliament provides little more than a framework on which to build. The building process requires co-operation.

The third consideration is money. Ffrangcon Roberts has implied in "The Cost of Health" that treatment is becoming so expensive that the nation's purse could not long stand the drain on its funds. He has further inferred that it is no good preventing disease because this only postpones death, with the resultant high cost of medical care of the aged. I do not share this pessimism. The high cost of treatment can be controlled; the bogey of the aged is much over-painted. If we prevent disease at younger ages we become a richer and more productive people; if we postpone death by this means we also can expect concurrently to postpone ageing.

Nevertheless, who is there to dispute the need for the most careful consideration of the financial aspect of comprehensive health care. We have reached our ceiling. All further activities have a slightly cannibalistic character. If now you introduce any one new service, it must be at the expense of another. But the real danger is not that of overspending. This can in any event be cured by surgical operation or prevented by the interposition of an artificial ceiling. The real danger is in imbalance of expenditure. Now that everyone must dip into the national exchequer for the wherewithal to put new ideas into practice, there is always the danger that the most forceful person with the strongest grip will get most out of the exchequer. We may find ourselves paying too much for treatment and having too little left over for prevention. We may spend all we have got in elaborating specialist techniques in hospitals and have too little left for the development of family doctoring. There are all sorts of dangers inherent in imbalance of expenditure. I imply in the word "danger" a real disadvantage to both the individual and the state. I wish I knew how this danger was to be overcome. So long as health is an abstract idea and sickness a concrete fact, so long as family doctoring is an art and hospital care a scientific exercise, it must always be difficult to get proportionate expenditure. Nevertheless, one of the means to reach this end is obviously through co-operation, just as the basic weakness of excessive spending can be mitigated by saving money through rendering service more effective and avoiding overlap by co-operation.

What can co-operation achieve?

Having defined what we mean by Health Services, and by the word co-operation, and having examined some of the reasons why co-operation is an indispensable adjunct, I want now to try to answer the question "What can co-operation achieve"? For this I shall select, first, out of the vast field of possible developments which the new scheme for comprehensive medical care has made possible, one particular aspect, namely, medical care outside hospital. I do this because it seems to me to illustrate best some of the fundamental

aspects, already discussed, which favour co-operation, viz. the individual in the complete setting of social as well as clinical attributes, and as a member of a family. And I do it because it has such an important bearing on the problem of money. If hospitals are too costly, we must seek alternative means of medical care, and we should turn to home care fortified by many of the recent findings of our psychiatric colleagues, such as, that the atmosphere of home is more congenial to mental health in many cases than that of hospital. Home care is not a relatively new or refurbished idea. Most people today when they are sick expect immediate transport in a modern ambulance to a modern hospital. This expectation, like that of the bottle of medicine, should be placed at the door of our medical teaching. It is not long since most people in Britain accepted naturally that the home was capable of covering most of the events of family life from the birth of a baby to sickness and death. In a scientific age this simple faith has had to adjust itself, like so much else, to modern discoveries. Nevertheless, there is something in this idea of our forebears and we should be prepared to examine it closely. I believe that a good measure of home care is still possible even in a scientific age. When I say still possible, I mean capable of achievement under reasonable conditions, and it is these conditions which we must examine. The simple faith of our ancestors in home care carried with it a belief in the ability of the family doctor to do all that was required. No one has that belief any more.

The first and most important need in such a home-care programme is to build up general practice as family doctoring in a complete and effective form. The development of medicine in two different directions has proceeded at a great pace, leaving the general practitioner far behind in an unequal race. To some people the family doctor has fallen so far behind that he should be left there and bypassed, and all medical care made the function of the hospitals. This philosophy would be fatal to the development of medical science, which should be based upon the individual as a total personality and in the setting of his family. Fortunately we have in this country today an unequalled opportunity to achieve a redevelopment or deployment of general practice, for, unlike many parts of the world, we have resisted the final breakdown of medical care into specialties to which the patient has direct access. Even at this late date we can hope in Britain to develop general practice in such a way that we introduce a barrier against the over-development of specialisation which constitutes such a heavy drain on the national exchequer. And we can also hope to see general practice developed to apply medical and scientific knowledge at a point where it can best promote health, detect early disease, and apply remedies in the least expensive form.

But the danger of a breakdown of medical care into many different specialties which carries with it the nemesis of general practice is now very real, and the urgency of the present situation can hardly be exaggerated. Much needs to be done to make family doctoring a reality in the sense that it seeks to promote health and rehabilitate illness and that it is developed as an effective agent for care in the home. The three most pressing needs for which at least a partial answer can be found through collaboration are as follows:—

1. The grouping of family practice.
2. The provision of basic scientific aids such as pathology and radiology without the interposition of special consultation.
3. The union of socio-medical care with family practice.

The first requires the collaboration of general practitioners, the second that of practitioners and hospitals, and the third that of practitioners and health departments.

The rehabilitation of general practice

This is not the occasion to plead for the advantages of group practice, which is now on every hand an accepted ideal. But it is pertinent to ask how we are to bring it about. In the present competitive system, which the 1946 Act has done little to change, the missing link in this symbiosis is the Health Centre. Collaboration is rendered much easier when the work of an area is undertaken as a joint venture from one building. The doubts and uncertainties which have surrounded this basic change in family doctoring have been aggravated by the grandiose schemes which at first unduly influenced our thoughts. With the acceptance of less costly buildings, which the Messer report has advocated, we should now make more rapid progress. Nevertheless, the overriding difficulty of bringing about group practice through the Health Centre lies, as we have seen, mainly with the doctors themselves, and it is unlikely to be resolved in such a way that health centres become general within the present system of competitive practice.

Where our greatest hope lies is in the provision of basic scientific aids for the practitioner and through the union of socio-medical work with family practice. These can be considered together as different aspects of one problem. That problem is how to give the family doctor the means to practise good medicine in the home. Medical practice has been extended to some extent contrarywise at two poles. On the one hand it has become increasingly scientific and inhuman; on the other it has become less scientific and more human. The contradiction is more apparent than real. Pathology and radiology are essential to good diagnosis. The social approach is equally vital to both diagnosis and treatment. Pathology and radiology must be conducted by experts with modern equipment and staff. There can be no return to amateur work at the G.P. level; but it should be the duty of hospital boards to make these facilities available by direct approach for all practitioners without the intermediary of hospitalisation or out-patient consultation. This relatively simple step would go a long way to meet the scientific needs of good general practice. It is, in fact, much easier to see in operation a good scientific general practice than it is the counter-part of a good social general practice. It is for this reason that I personally regard the union of socio-medical work with the family practice, with or without health centres, as having the greatest meaning. What the family doctor needs most, today, is the full collaboration and help of the team of auxiliary workers that have come into existence over a number of years, independently of him. This calls for close union of the family doctor's work with that of the health department, with welfare and with

children's work, as well as with many of the voluntary agencies which deal with family welfare. It is unreal today to allow all these agents to operate independently. The social factors of family practice are to be found in the home and in the factory and in the school.

Let us for a moment consider the meaning of this as applied to the different groups of patients that come to the surgery door. Take the aged. It is, of course, common knowledge that there are now 110 in every 1,000 persons over 65 years of age in this country. Two-thirds of deaths are now in people over 60 years and half are people over 70 years. Diseases of degeneration of the heart and blood vessels, of the lungs and nervous system, are enormously increased by the increase in numbers living into the later years when such degeneration occurs. People in these old age groups make, on the average, at least twice as many calls on the doctor's time. There is a significant increase in nutritional disorders among the aged. To this picture we must add the remarkable deterioration to be seen in the aged who leave home for institutions; physical and mental health decline alarmingly in the atmosphere of the institution. We are thus faced with the fact that every effort must be made to keep the older people at home, happy and occupied. Welfare work among the aged must be regarded as a fundamental part of social medicine.

The work of the family doctor among his patients over 65 years of age constitutes a considerable and increasing fraction of his day's labour. Much of the time spent on this is almost meaningless since it is embarked upon too late. The organisation of studies of health among the aged and of medico-social visits would make the work economical and worth while.

Throughout the whole of our consideration of the problem of the medical care for the aged there is to be found the modern development of welfare. Welfare is the concern of the National Assistance Act of 1948. To many people it has nothing to do with health services or with medicine. This is a great error. Modern developments of welfare are fundamental to our schemes of home care for the aged. This work should form part of the health department. There must be the closest collaboration between the medical officer of health and the welfare officer.

Welfare work among the aged should be mainly health promotion. In this exercise the family doctor should be leader, with the aid of the health visitor. These should handle the social and preventive aspects with recourse to other agents in the welfare field, e.g. for instruction in manual skills or for the development of social clubs. Individuals among the aged who are in need of supervisory care can be determined by simple and continuous surveys undertaken by health departments. These should form the subject of case study between the M.O.H. and the family doctors in his area. When all remediable steps in the social field have been taken, it remains for those aged to be visited regularly and for continuing advice and supervision. This again will require the closest collaboration between the health visitor and other welfare agents (either voluntary or statutory) and the family doctor.

Although institutional care is to be avoided to the greatest extent possible, clearly in an ageing population there is a fraction of cases who must have

hospital care. The selection of such cases for admission to institutions for the chronic sick or for old people's homes should be done as a scientific study in social case work based on a medical assessment. A selection of cases should be designed to meet the needs of both the individual and the community. This calls for the highest degree of collaboration among the family doctor, the health and welfare departments, and the hospital.

Many of the degenerative diseases in the aged call for continuing nursing over long periods of time. In many cases this may constitute a great burden upon the younger generation. It can be an equal burden for the exchequer. There is, of course, no simple answer to this problem which must increasingly afflict us as our population ages, but it is certain that much of this sickness must be handled at home. The home nurse must be reinforced by the home-help, by meals on wheels, by voluntary visiting. For people who are ill for long times and when life is waning, the home is much the best place.

At the other end of the scale we have the children, who now amount to only twice the number of the aged. Childhood is the time when infections can be most troublesome; it is also the period when attitudes, education, and parentcraft can influence the health picture greatly. The greatest change in epidemiology during the past century has been the disappearance of so many of the fevers that carried off the young. Of the infections that now remain a few are lethal. It is doubtful whether children with infectious disease (with the exception of a few who are seriously ill) should any longer be admitted to hospital. There are many psychological and other disadvantages for the young, particularly the very young, in hospital. The best place for a child to be nursed is in the home. Here again we see the need for co-operation between all those agencies that make nursing in the home possible, the home nurse, the home help, the family doctor, the medical officer of health, and the voluntary visitor.

The change in lethal infections has been equalled by the alterations in out-look of child care. A knowledge and understanding of behaviour is now seen to be fundamental to the promotion of health. The services which have grown up to promote health in the school child, the counterpart of the maternity and child welfare services and the more recent revolution of mental health and child guidance services, must be made the right arm of the family doctor. What greater field of collaboration than this?

One of the most vulnerable sections of the community is that comprised of expectant mothers. About three-quarters of a million every year undertake the long process of gestation, during which the promotion of physiological living is of as much importance as continued medical care. Every expectant mother, today, can engage her own doctor. At the same time she can attend at local authority clinics for advice in the physiological development of pregnancy. This ideal combination of medical with social care still awaits general acceptance. Many family doctors regard it as unnecessary that there should be a collateral form of education. Many hospitals consider that the provision of ante-natal care in an out-patients' department is all that the mother needs. The best results can only be achieved by collaboration. In this conjunction of professional advice the hospitals as well as the family doctors

must agree to share. Now that over half our mothers are delivered in hospital, a new and rival form of ante-natal care has grown up. If this to equal in value the old-established care given in health authority clinics, hospitals must agree to organise teaching to include mothercraft and an understanding of the physiological, nutritional, and social factors. Britain has retained domiciliary confinement to an appreciable degree longer than many other countries. We are at the parting of the ways. We have to choose between a scientific delivery with the aseptic techniques of the modern operating theatre and the older traditional delivery at home, where both mother and child begin their life together as the focal point of family life. Many psychologists regard the advantages of such a simple family relationship as outweighing the benefits of hospital asepsis. If this is a sound doctrine psychologically, it is certainly sound financially. But to make home delivery equal to and better than hospital confinement we need first to make homes fit for babies to be born into. To see how far we are from this in many parts of Britain, we need only to consult the 1951 Census 1% sample tables. Can a baby be born with safety into the 5% of households in Newcastle-upon-Tyne or Glasgow, where more than three people are living per room? We must also have the closest link between the midwifery, home helping, health visiting, and family doctoring services. Collaboration again at the highest level. We need a close understanding between regional hospital boards and health departments to determine the women who most need institutional care, and also to work out the needs for beds and the proper balance of training of domiciliary and hospital midwives.

Let us now turn to the 20 million 'workers' upon whose combined efforts to maintain and increase our wealth everything depends. Whatever money we spend to maintain our health comes ultimately from this source. A man, and many a woman, spends half of his or her time at work. Health depends upon work almost as much as work affects health. Many surveys have shown how much sickness in industry is fundamentally related to the mind. This great volume of morbidity cannot be dealt with adequately unless the situation at home is correlated with that at work and vice versa. What steps do we now take to ensure that the family doctor, the health department, the factory medical service (so far as it exists), are working together? The obvious need of today is to link the services for home care by health departments and executive councils with the medical and welfare services of industry. Since 90% of factory workers are in small concerns that have no organised health service, the greatest advantage could come from extending the work of family doctors and health department staff to cover this field work.

The Handicapped

The need for co-operation can nowhere be more urgently seen than in the care of the handicapped. The "substantially and permanently" handicapped which covers the range of responsibility of the National Assistance Act, those with handicaps within the wider significance of the Disabled Person (Employment) Act, 1944, present medicine and particularly social medicine with an inescapable challenge. In no sphere of medical care are the relative limits of

hospital treatment so clearly seen and yet so urgently in need of integration with the care of the individual in the world outside. The handicapped present a problem of great complexity, the extent of which has not yet been clearly delineated. For the complexity there is no one to blame except, perhaps, in some instances, as for example crippling from tuberculosis, where there has been inadequate use of preventive medicine. For a lack of a clear understanding of the range of the handicapped problem, we have to blame the inadequacy of our own recording. Since we have so long had the benefits of an adequate recording of deaths, it seems strange that we have resisted an adequate recording of disease, particularly of handicaps. With perhaps the most complete school health service in the world, it would have been expected that all handicapped children, at least, would have been adequately recorded, but this, for a number of different reasons, is not so. It would take more space than I have here to cover all the handicapped classes. The epileptics, spastics, and mentally handicapped illustrate very clearly the need for collaboration. Most of the unfortunate people who suffer from these handicaps will have done so during their period at school. The school health service should consider it as a prime obligation to determine their existence and study their nature. It is perhaps not too much to say that the epileptic has been made or marred at school. Every epileptic child should be the subject of case study during his school life and continued supervision to ensure that he obtains the best education, if possible at an ordinary school. This is also true for the spastic and mentally handicapped. Most education authorities are now taking this matter very seriously, but unfortunately their responsibility ends at the end of school life. It is surprising how much harm is done during the short time after leaving school when no adequate supervision is available. It is recorded in that excellent account, "Employment Problems of Disabled Youth in Glasgow", that a few weeks of idleness for the mentally handicapped after leaving the discipline of school might be fatal to the future of the youth and render him unemployable. The traditional unemployment of the epileptic, the frequency of their change of jobs, is to a large extent preventable. The epileptic who leaves school is a problem in social medicine; to secure him congenial employment of the type which he can safely carry through in an atmosphere of sympathy and understanding, with the certainty that he continues under proper medical treatment, should be the subject of skilled social case work. The gap between our present school health service, the care and after-care service of the local authority, the disabled employment service under the Ministry of Labour, and the welfare service of the National Assistance Act is largely responsible for the regrettable conditions found among the youth in Glasgow with its high rate of unemployment and dereliction.

Few of the problems of the handicapped can be solved by a purely medical approach; on the other hand, few can be solved without the aid of medical care. What is needed is an integration of medical and socio-medical care. With so many and so costly services available, it is in many ways disappointing that no more than a halting start should have been made with a great national problem. Comprehensive medical care is incomplete in a vital spot if it leaves this section of the community unprotected. The machinery is there but fails at

the joints. The question we have to ask ourselves is "How can we secure that the school health service, the hospital, the family doctor, the health and welfare departments of local authorities, and the Ministry of Labour disablement service, that all concerned work together"? This imposes a great strain upon human sympathy and understanding.

Co-operation between home and hospital

One of the most valuable accomplishments of the National Health Service Act has been to bring to the fore the need for co-operation between the home and the hospital. The hospital episode is but a brief interlude in most people's lives. In many cases success or failure of the hospital care will depend upon what happens to the patient when he returns home. This is particularly true of the very young, school children, and the old. It is common knowledge that many weakly babies have returned to the over-crowded slum home to die, just as it is obvious that the school child with a handicap will only fit into a school setting if the teaching staff understand the nature of his handicap.

The aged person living alone and the chronic sick present deep social problems. We now realise that the hospital cannot operate in isolation, but we are still very far from understanding how its operations will be synchronised with those of the family doctor and the local health department. Surgical cases may leave hospital and continue with nursing at home. How is the home nurse to be brought in touch with the hospital staff and understand precisely her position in the continued process of nursing? The premature baby reared on special feeding techniques must go straight into the hands of some professional person who understands those techniques. How is the family doctor or health visitor to be made aware of this? The epileptic child returns to school. His success there will depend upon the sympathy and understanding of the teachers. How are the medical services for the epileptic to be integrated with the educational? How is the school medical officer to know what the hospital has found and done? These, and a thousand other difficulties beset us. We are far from finding the solution to them. The problem of infections within the hospital has long been a subject of difficulty and concern. Many of the same infections occur within the community where the M.O.H. seeks to prevent their spread. There is clearly need for an integration of the work of the M.O.H. for the community with those similar problems that occur within the hospital. How are we to bring about this integration? The problems of hospital admission are often related to the social circumstances of patients at home. This is true of the expectant mother and the chronic sick. Here again we need to relate the work of the health department, the family doctor, and the hospital.

How to secure co-operation

I may have done enough to show why co-operation is much needed in our health services. I have, of course, touched very lightly on the problem. We should now ask ourselves how co-operation is to be brought about. What catalyst can be introduced to further this particular reaction? One obvious expedient is the committee. If we have many services operating under a separate leadership but all aimed at one end, then we should bring the leaders together. This is, of course, not easy in an operation so widespread as the one

that we are considering. Health in the factories, health in the schools, hospitals, general practitioners, the home, the problems of the environment, of mental health and handicaps, concern so many different bodies and people. Where there are a lot of committees already in existence governing separate operations, we should not expect too much of the joint committee that seeks to relate their interests. Co-ordinating committees at government level have their limitations and I do not, myself, expect much to come from the present suggestions of the Central Health Services Council to co-ordinate the activities of the Executive Councils, local health authorities, and the Regional Hospital Boards, by further committees.

Committees at officer level can accomplish much. Effective officer committees are working in many areas on, for example, the problem family. Officer committees can do much to relate the work of regional hospital boards and health departments. These should be encouraged.

One of the most important, if not the most important, catalysts to make people work together is co-ordination. People cannot work together against impossible forces. The ability to co-operate is, perhaps, the chief characteristic of the British character, which rests upon tolerance, patience, and an ability to see the other's point of view. But unnecessary separation of administrative units sets up stresses and strains that are difficult to counter. We have seen that the need for co-operation is deep and widespread. We should realise that it is often impossible in the present framework of our services. We cannot strain this gentle quality unduly.

So long as we continue our 1946 Act in three water-tight compartments, it is hardly feasible to achieve co-operation in the interests of the patient and the nation, including its exchequer. When institutional care becomes too expensive, we should be aiming to build up services for "home care". Family doctoring, home nursing, home helping, home midwifery, health visiting, with the aid of health centres, should be supported. But the opportunity to develop one service as an alternative to another is largely denied to us under an administrative structure that separates the services of hospitals and specialists under one authority, family doctors under another, and auxiliary medical services for home care and health promotion under yet another. This difficulty could be overcome by creating health areas in which all the services for health developed by the 1946 Act are under one authority. When this step is taken, the area should not be too large. The present areas of the regional hospital boards are certainly too wide. To bring about co-operation between the present health service and welfare service and between the present children's service and the health service, we should again seek for co-ordination. Both of these could with advantage be integrated with the work of the health authority. The range of work of such an authority should also be extended to include the factory health service, which is much in need of development. One health authority charged with the duty of producing an integrated health service in its area would have an unequalled opportunity to develop services within a limited budget to meet the many and varied needs. But above all, the problem of co-operation in the interests of the patient, between the many and varied interests, would be rendered incomparably easier in such a framework.

A Comparative Study of Combined Kirschner-Loewenstein Medium and Routine Loewenstein Medium for the Cultivation of Mycobacterium Tuberculosis

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THE DEMONSTRATION of the presence of tubercle bacilli in various secretions from the patient has remained one of the major activities of the laboratory of the sanatorium for tuberculosis. Of the various methods, cultural or animal inoculation has generally been preferred, rather than reliance only on the demonstration of acid-fast organisms in the concentrated specimens. These methods, however, have the disadvantage of requiring from four to eight weeks for a result to become apparent.

The use of the Dubos' type of fluid medium with Tween-80 or oleic acid and albumin has been advocated, both for sensitivity and relative speed of result (1, 2, 3). In some hands, however, its use for routine isolation has been attended by certain disadvantages. Contamination has been a factor. These contaminants have been occasionally acid-fast (4), and when, as recommended by some (5), confirmatory slant is made again on Loewenstein's or other solid medium for identification of the colonies, the initial advantage in speed of demonstration has been lost.

The combined use of a solid medium and a fluid medium in the same tube was first utilized by Castaneda (6) for the demonstration of Brucella in the blood. Recently there appeared a report on the use of a combined Tween-albumin fluid medium and Petragnani solid medium as a diagnostic medium for *M. tuberculosis* (7). Though the overall sensitivity of this method was not unduly greater than that of the Petragnani alone, characteristic colonies could be identified on slopes containing the combined medium on an average of eight days less than on slopes containing the other.

We had been working on the slide-culture technique of Berry and Lowry (8, 9), which employs Kirschner's basic fluid medium (10), with serum albumin. Though in our hands this method was not feasible in routine use, we were impressed by the rapidity of growth in the modified Kirschner's medium. With the modification employing Bovine Albumin Fraction,* growth in some of the specimens was evident within two to four days. Consequently a comparative study was planned employing our routine Loewenstein medium as compared with a combined medium of Loewenstein and Kirschner's modified medium.

*Bovine Fraction V, supplied by Armour Laboratories, Chicago, Illinois.

This paper was originally submitted for publication in May 1951.

Procedure

Specimens were collected in tri-sodium phosphate solution (see Appendix for method of collection) and subsequently planted on both our routine Loewenstein's slope (Appendix) and a "combined" slope containing both Loewenstein's and 2 c.c. of Kirschner's (9) modified medium (Appendix), containing 25 units of penicillin per c.c. of fluid. As the purpose of this study was to compare the two types of medium, no notes on the results of the smears were made. Cultures were read twice a week, and the combined medium was tipped slightly at each examination to reinoculate the surface of the slope. A complicating factor was the difficulty in keeping the tubes of combined medium from evaporating, which was shown by the disappearance of the fluid medium, though the Loewenstein medium appeared unchanged.

Comparison of the Sensitivity of the Two Media

Six hundred and sixty-three specimens received for culture were planted on each of two tubes, one containing the combined medium and the other our routine Loewenstein's medium. The overall results with these specimens are shown in Table I.

TABLE I

Results of 663 Specimens Planted on Both Media
(Percentages in Parentheses)

1. Positive on both media		107	(16.1)
2. Negative on both media		257	(38.8)
3. Positive on combined, negative on routine		24	(3.6)
4. Negative on combined, positive on routine		2	(.3)
5. Contaminated on combined media—50 (7.5)	Positive on routine	9	(1.3)
	Negative on routine	29	(4.4)
6. Contaminated on routine—40 (6.0)	(Contaminated on routine and contaminated on combined)	12	(1.8)
	Positive on combined	9	(1.4)
	Negative on combined	12	(1.8)
7. Combined medium dry—197 (29.7)	(Combined medium dry and routine medium contaminated)	7	(1.1)
	Positive on routine	3	(.4)
	Negative on routine	187	(28.2)
8. Combined medium tubes broken, Loewenstein negative		5	(.8)
		663	(100)

Of these, 140 (21.1%) were positive on the combined Kirschner's and Loewenstein's medium, while 121 (18.3%) were positive on the routine Loewenstein's. Of the 140 positive on the combined medium, 24 (3.6%) were positive on that alone, while of those positive on the routine Loewenstein's, only 5 (.8%) were positive on that medium alone. To see if these differences could have been expected to occur by chance alone, and not through any particular difference in sensitivity of the medium, the probability of this occurring was calculated, and the statistical significance stated.* These and

*The data were arranged in four-fold tables and x2 calculated, using four-figure logarithm tables. Then P was found by referring to published tables of x2.

subsequent data are shown in Table II. It is seen that the overall sensitivity of the combined culture medium was not significantly different from that of the routine Loewenstein's alone.

TABLE II

COMPARISON OF SENSITIVITY OF MEDIA
(Percentages in Parentheses)

Specimens included	Total	Combined Medium Positive	Routine Medium Positive	Only Combined Positive	Only Routine Positive	Probability of difference occurring by chance	Statistical Significance ($P<.05$)
All inoculated	663 (100)	140 (21.1)	121 (18.3)	24 (3.6)	5 (.8)	$>.15$	nil
Specimens contaminated on either medium eliminated	580 (100)	131 (22.6)	112 (19.3)	24 (4.1)	2 (.4)	$>.10$	nil
Specimens dry on combined also eliminated	390 (100)	131 (33.6)	109 (28.0)	24 (6.2)	2 (.5)	$>.05$	nil

To compare further the efficiency of the media, only specimens in which unequivocal results were available on both the combined and Loewenstein's media were considered, and the cultural results of these reassessed. The second group then considered was those in which there was no contamination on either the combined or the routine media. Those specimens in which the combined medium was dry were considered as negative on that medium. In this group of 580 specimens, 131 (22.6%) were positive on the combined medium and 112 (19.3%) on the routine Loewenstein's medium. Also, 24 (4.1%) were positive on the combined medium alone, while 2 (.4%) were positive on the routine. It is seen in this group, too, that the differences cannot be considered significant.

If we eliminate the 197 specimens where the combined medium was found to have dried due to faulty sealing of the screw cap (the corresponding Loewenstein's slopes being negative in 187, positive in 3, and contaminated in 7), we are left with a third group of specimens in which both the combined culture and Loewenstein's were done on the same specimen, and completely unequivocal results are available for each culture. There were 390 specimens that meet these criteria. Of these, on the combined medium 131 (33.6%) were positive, while on the routine Loewenstein's 109 (28.0%) were positive. Also, 24 (6.2%) specimens were positive on the combined alone, while 2 (.5%) were positive on the routine alone. It can be seen that even in this group the difference in efficiency is still not significant. In fact, there was no evidence in this study that there was any difference in efficiency between the two media as far as the overall sensitivity was concerned.

Comparison of Rate of Appearance of Positives on the Two Media

Wasiliew and Johnson also failed to find any difference in efficiency between the combined Tween albumin and Petragnani medium (7). However, they commented on the increased rapidity of appearance of the positive cultures on the combined medium. Our experience with the Kirschner-Loewenstein combined medium has been somewhat similar. Table III shows the rate of appearance of the positive cultures, both as total becoming positive during

TABLE III

Comparison of Rate of Appearance of Positives

I. Among the total 663 specimens:

Time in days	6	12	18	24	30	36	42	48	54	60	Total
Combined Medium	0	0	38	46	30	15	7	2	1	1	140
Cumulative total as % of total positives (145 = 100%)	(0)	(0)	(26.2)	(57.9)	(78.6)	(89.0)	(93.8)	(95.2)	(95.9)	(96.5)	(96.5)
Routine Medium	0	0	19	51	24	12	8	5	2	0	121
Cumulative total as % of total positives (145 = 100%)	(0)	(0)	(13.1)	(48.3)	(64.8)	(73.1)	(78.6)	(82.1)	(83.5)	(83.5)	(83.5)

II. Among the 390 specimens where unequivocal comparison possible:

Time in days	6	12	18	24	30	36	42	48	54	60	Total
Combined medium	0	0	37	45	26	14	5	2	1	1	131
Cumulative total as % of total positives (133 = 100%)	(0)	(0)	(27.7)	(61.7)	(81.3)	(91.8)	(95.6)	(97.1)	(97.9)	(98.7)	(98.7)
Routine Medium	0	0	18	50	22	8	8	2	1	0	109
Cumulative total as % of total positives (133 = 100%)	(0)	(0)	(13.5)	(51.0)	(67.7)	(73.7)	(79.7)	(81.2)	(82.0)	(82.0)	(82.0)

particular periods, and as the cumulative total at any period, expressed as percentage of the overall total becoming positive.

The figures suggest a definite increased rate of appearance of positive cultures. These consisted, of course, only of typical colonies on the surface of the Loewenstein slope, whether in the combined tube or on the Loewenstein alone.

Since it might be considered unfair to the method to include those specimens in which the modified Kirschner's medium evaporated because of unsatisfactory screw caps, and also where tube breakage in one or the other specimen or contamination made comparison difficult, the same 390 specimens where unequivocal results are available on both media are similarly tabulated as to the speed of positivity. This is also shown in Table III. Here again the somewhat earlier rate of appearance of a positive culture is apparent.

Discussion

The use of a tube containing both a fluid and a solid medium for the routine cultivation of tubercle bacilli would seem to include most of the advantages of both media and to minimize their disadvantages. Studies of various combinations would seem to be indicated. Our results would not seem to be as good as those with combined Dubos and Petragnani (6). However, we intend to make a comparative study of combined Dubos with Loewenstein and combined Kirschner with Loewenstein against Loewenstein alone. We shall not, this time, use penicillin in either of the fluid media, since contamination was not a particular factor in this study.

Summary

A comparative study for the routine isolation of *Mycobacterium tuberculosis* was carried out, using a combined medium containing a modified Kirschner fluid medium and Loewenstein's medium as compared with Loewenstein's medium alone. In a total of 663 consecutive specimens submitted for culture, 140 (21.0%) were positive on the combined medium and 121 (18%) on the Loewenstein. The combined medium was found to hasten the speed of positivity by from three to six days. Further trials of combined media of this type would seem to be indicated.

ACKNOWLEDGMENTS

The authors acknowledge the assistance of Miss V. Jurima in compiling the data and wish to thank Mrs. P. Jackson for preparing the manuscript. Permission to publish this material was given by Dr. C. A. Wicks, Superintendent, Toronto Hospital for Tuberculosis, Weston, Ontario. Expenses of this study were defrayed through Federal Health Grants, arranged through the Ontario Department of Health.

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APPENDIX

A. METHOD OF COLLECTION OF SPECIMENS

Sputa and gastric washings are collected directly in bottles containing 10% tri-sodium phosphate solution (23% $Na_3PO_4 . 12H_2O$). Twenty-four hour urine samples, after precipitation with 5% tannic acid (2 c.c. to 1 litre), are allowed to settle overnight and the sediment is centrifuged. The final sediment is similarly treated with the tri-sodium phosphate solution. The material, digesting in an approximately equal amount of solution of tri-sodium phosphate, is allowed to stand overnight. After digestion, the specimens are neutralized with N.HCl. acid, using bromthymol blue as an indicator, and are then planted on our Loewenstein slopes.

B. LOEWENSTEIN MEDIUM

As used at the Toronto Hospital, Weston

Distilled water	1,000 c.c. (plus 200 c.c. for evaporation)
Asparagine	3 gm.
KH_2PO_4	1 gm.
Mag. sulphate	1 gm.
Potato flour	8.3 gm.
Tomato juice	100 c.c.
Stir to dissolve and add:	
Glycerine	60 c.c.
Cook in double boiler for 2 hours.	
Malachite green	34 c.c. of 2% solution

Add to 10 beaten egg yolks and 26 beaten eggs. Sterilize by heating in autoclave with valves closed off at about 90°C. for ½ hour on each of three successive days.

C. MODIFIED KIRSCHNER MEDIUM (9)

Na_2HOP_4:12 H_2O	3 gm.
KH_2PO_4	4 gm.
Mg SO_4: $7H_2O$	0.6 gm.
Sodium citrate	2.5 gm.
Asparagine	5 gm.
Glycerine	20 ml.
Distilled water to	1000 ml.

Autoclaved at 15 lbs. for 30 minutes. To the cooled solution add aseptically 100 ml. 5% Bovine Fraction V Seitz filtrate.

Canadian Journal of Public Health

CANADA'S NEW FOOD AND DRUGS ACT

CANADA was first in the Western hemisphere to provide legislation on a national scale and establish supervision of food and drugs, enacting in 1874 The Adulteration Act. In 1920 The Food and Drugs Act succeeded The Adulteration Act. Continuous review and revision to meet changing conditions have made it possible for the Department of National Health to develop legislation that is eminently practical and effective. In 1949 the Department published the Act and Regulations in a form which was most convenient for quick reference and which contributed greatly to the functioning of the regulations.

At its last session the Parliament of Canada passed a new Food and Drugs Act. The director of the Food and Drug Divisions is Dr. C. A. Morrell, whose excellent work in the administration of the Department and the development of legislation have won for him an outstanding place in food and drug control. With the assistance of a committee consisting of officers of these Divisions and the Legal Division of the Department of National Health and Welfare, a new Act was prepared and presented to Parliament. This Act provides a more orderly approach to the subject matter of the legislation, in dealing individually with foods, drugs, cosmetics, and devices. The provisions of the Act have been rearranged and certain anomalies removed. The new provisions include the keeping of records by manufacturers and others who previously were not required to do so; prohibits the sale of an article that has been manufactured under unsanitary conditions; and provides for the strengthening of the measures for enforcement.

Following the passing of the Act, the Department is amending the Regulations. As soon as the new Regulations are published, the Act will be proclaimed.

One of the most important sections is designed to prevent exploitation of the public through the advertising of treatments for certain serious diseases for which competent diagnosis and treatment are necessary. A clause in the new Act simplifies enforcement procedures in that it is not necessary to prove

in court that the treatment is ineffective or that the sale of a given product is a fraud which may be injurious to health. It is necessary only to prove that the product was advertised to the general public or labeled as a treatment for one of the diseases mentioned, and sold. The new wording makes advertising an offence in itself. A considerable number of successful legal actions have been taken by the Department under the former section relating to this control, and it is expected that the new clause will be even more effective.

It is of special interest that manufacturers, who are immediately concerned in this legislation, have co-operated with the Department and given valuable assistance in the development of the new Act. Following its consideration by the Senate Committee on Health and Welfare, four public sessions were devoted to a study of the Bill and consideration of questions asked by manufacturers and others. Only minor points were raised in these public hearings, and the amended Bill was passed by the Senate and sent to the House of Commons, where it received one brief amendment and little or no opposition. Endorsement by the manufacturers of the new legislation is evidence of the care taken by Dr. Morrell and his colleagues in its preparation.

The Act is designed to govern the safety, purity, and quality of all foods, drugs, and cosmetics. In its functioning the Department will continue to stress education and enforcement. For its administration, there are the Central Food and Drugs Laboratory and five Regional Laboratories, with a staff of inspectors. To keep pace with the introduction of new drugs and of chemicals used in the food industry, scientific and technical studies have been extended, so that the Department is able to support its recommendations by its own laboratory findings. The administration of the Food and Drugs Act is one of the most important activities of the Department of National Health and Welfare. It would be most helpful, in the administration of the Act, if the public had a greater appreciation of the Food and Drugs Act in safegarding their health and welfare.

The Canadian Public Health Association 1952-1953

(PART 2)

REPORT OF THE COMMITTEE ON PROFESSIONAL EDUCATION

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THE WORK OF THIS COMMITTEE constitutes one of the important services rendered to the Provincial and Federal Departments of Health. In the Committee on Professional Education the Association has a group of members with wide experience in special fields. Its work relates to the establishing of qualifications for all public health personnel and to the forwarding of the training of personnel. It is concerned with the provision of adequate instruction. A survey of facilities for post-graduate training in public health nursing indicates that 10 universities and institutions in Canada are now providing training. This constitutes an important increase in the number of courses offered. The Schools of Hygiene in the University of Toronto and the University of Montreal have extended their teaching programs and are providing adequately for the needs in post-graduate education. Increasing attention has been given to the provision of courses for graduates in agriculture, nursing, engineering, physical and health education, and other university courses, since it is being increasingly recognized that the public health program requires trained personnel in many fields, including health education, statistics, administration, laboratory services, etc. Of special interest has been the provision of a formal course of instruction in sanitation by the Department of Health of Ontario. This course is outlined in the report of the Committee on the Certification of Sanitary Inspectors. The correspondence course in sanitary inspection, conducted by the

Reports presented at the forty-first annual meeting of the Canadian Public Health Association, held in Toronto on September 30 and October 1 and 2, 1953. Part 1 was published in the October JOURNAL.

Association, has continued to be an essential part of the training of sanitary inspectors who could not attend the courses given by the Ontario Department of Health or the School of Hygiene, University of Montreal.

The members of the Committee on Professional Education are cognisant of the changing public health program. Within the past few months the Government of Canada has announced an extension of the National Health Program, making provision for assistance to the Provinces in the fields of child and maternal care, rehabilitation, and diagnostic and laboratory services. Mention of these at once brings to mind the intimate relationship of social welfare and medical care to the public health field. The Committee on Professional Education will give thought to the inclusion of social welfare and its related subjects in the qualifications and training in public health.

In the American Public Health Association the Committee on Professional Education has sponsored a Professional Examination Service. This important development is largely due to the leadership of Dr. Lillian D. Long, director of the service, and Dr. Reginald M. Atwater, executive secretary of the Association. The service is now being established on the basis of an annual fee, and nearly three-quarters of the States have approved this annual charge, together with a number of cities and counties. The examinations which have been established are of the objective type, instead of the essay type. The objective examination is supplemented by an oral examination. In this way, an effective examination is provided. Your Committee in the Canadian Public Health Association is continuing to study the objective type of examination and its possible use in Canada.

A sub-committee of the Public Health Nursing Section, with Miss Edna L. Moore as liaison officer, has been engaged in establishing qualifications in this field. It is anticipated that the sub-committee's findings will be presented to the Committee in the near future. The sub-committees on qualifications of public health veterinarians and public health statisticians are engaged in surveying their fields. Dr. G. A. Edge and Dr. V. C. R. Walker are liaison members of the sub-committee on qualifications of veterinarians and Dr. A. H. Sellers is a liaison member of the sub-committee on statisticians. Consideration continues to be given to the qualifications of public health educators. Miss Margaret E. Nix is liaison member of this committee.

REPORT OF THE SUB-COMMITTEE ON RECOMMENDED QUALIFICATION REQUIREMENTS AND MINIMUM SALARIES FOR PUBLIC HEALTH PERSONNEL IN CANADA

(Committee on Professional Education)

J. H. Baillie, M.D., D.P.H., Chairman
William Mosley, M.D., D.P.H., Secretary

THE SUB-COMMITTEE completed its third annual survey of salaries paid to public health personnel in Canada and published a revised edition of "Recommended Educational Qualifications and Minimum Salaries for Public Health Personnel in Canada" in 1951. Information was gathered from the 10

Provincial Health Departments, 149 health units, 23 city health departments, and the Department of National Health and Welfare. These data formed the basis for the recommendations of salaries that are considered to be the minimum that should be paid for the particular position or grade anywhere in Canada. Upward adjustments of these minima are, of course, recommended for areas or Provinces of generally higher economic status. It is gratifying that the recommendations published in 1951 have been generally accepted and have been helpful in bringing salaries of public health workers to a more satisfactory level.

Without question, the obtaining of trained public health personnel constitutes the most serious problem facing health administrators, Much has been done to improve the salaries paid in public health departments, but there is need for continued effort. In many areas the minimum salaries recommended by the sub-committee in 1951 have not yet been provided. There are serious shortages in a number of fields. Mr. J. R. Menzies, Chief Sanitary Engineer in the Department of National Health and Welfare, reports that there are 65 full-time positions in sanitary engineering with the Department, and that 18 of these are unfilled at present. Undoubtedly the adoption of salary schedules in keeping with the salaries paid workers with similar responsibilities in private enterprise in the same area would make it much easier to obtain public health personnel. Not only are basic salaries inadequate in many cases, but there is failure to provide annual increments. This is one of the main reasons why it is difficult to retain well-trained personnel. It is very hard to maintain a high standard of service in face of the attitude that the public health worker is apparently not worth any more to the department after a number of years of experience.

The conducting of a fourth survey, with the subsequent publication of revised recommendations, will be discussed by the Executive Council at this meeting.

REPORT OF THE COMMITTEE ON THE CERTIFICATION OF SANITARY INSPECTORS

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THIS, THE EIGHTEENTH ANNUAL REPORT of the Committee on the Certification of Sanitary Inspectors, records the continuation of the service of the Association in the training of sanitary inspectors.

Twenty-eight candidates were enrolled in the 1952–53 session of the correspondence course in sanitary inspection conducted by the Committee: 7 in Saskatchewan, 5 in Manitoba, 11 in Ontario, 1 in Quebec, 2 in New Brunswick, and 2 in Nova Scotia. Subsequently they wrote the 1953 examinations for the Certificate in Sanitary Inspection (Canada), held in the various provincial centres on June 26, 27 and 28. Twenty-six were successful and have been granted the Certificate, and 2 were conditioned in one subject, which they may repeat at a subsequent annual examination. With the granting of the certificate to these 26 candidates, the Canadian qualification for employment in this field has been obtained by 872 inspectors since the first examinations were held in 1935. Statistically, and in terms of the service given by these inspectors, the Association has made a major contribution. The success of the Association's effort to improve the qualifications and the status of the sanitary inspector has been dependent on the interest and co-operation of the Provincial Departments, under whose direction the examinations have always been conducted. The Canadian Institute of Sanitary Inspectors has rendered valuable assistance in appointing a representative to each of the provincial boards and in offering constructive suggestions.

The introduction of a course of training by the Department of Health of Ontario, in January 1953, marked an important advance. The course occupies nine months and carries with it a training stipend of $175 a month for candidates with dependents and $125 a month for those without dependents. Tuition fees are also paid. The qualifications for enrolment are junior matriculation, plus evidence of job suitability. Major A. S. O'Hara has been co-ordinator of the course. It will be recalled that the first formal courses for sanitary inspectors in Canada were those provided by the School of Hygiene, University of Montreal, and by the Manitoba Department of Health and Public Welfare. Through the provision of these courses, candidates now have an opportunity to receive training in the basic subjects, and to have supervised field training extending over six months or more. Eleven candidates were accepted for the first course given by the Department of Health of Ontario. They will complete the course this month and on October 13, 14 and 15 will write a special examination for the Certificate in Sanitary Inspection (Canada), conducted by the Association in Toronto.

The Association will hold the 1954 examinations in the various provincial centres on September 15, 16 and 17, and will open the 1953–54 session of the correspondence course on October 26. The correspondence course will no longer be available to candidates residing in Ontario and Quebec, since instruction may be obtained through attendance at formal courses in sanitary inspection. The correspondence course will, however, be available to candidates living in other Provinces. A major revision of the material being used in the course is under way. The assistance provided through the course is of great value to students who have not access to a formal course of instruction.

The Association has continued the distribution of the Manual for Sanitary Inspectors, which is available in both French and English.

REPORT OF THE COMMITTEE ON RECRUITMENT OF PUBLIC HEALTH PERSONNEL

William Mosley, M.D., D.P.H.
Chairman

THE CANADIAN PUBLIC HEALTH ASSOCIATION is the logical body to carry forward the programs designed to provide adequate numbers of workers for the public health field. The service that it renders is therefore of fundamental importance to the Federal and Provincial Departments of Health and to local health authorities. The Committee on Recruitment is concerned also with the presentation of the opportunities in careers of teaching in faculties of medicine, schools of hygiene, and other institutions. Recruitment of public health personnel requires long-term planning; in the nursing field, for example, programs designed to interest high-school girls have long been recognized as essential.

During the past year the Committee has placed copies of a booklet entitled "Public Health as a Career" in the hands of the professors of preventive medicine in the faculties of medicine, for distribution to their students. Undergraduate students in medicine are now regularly receiving information about public health appointments and arrangements for training. It is reasonable that candidates who are proceeding to the Diploma in Public Health or are enrolled in other post-graduate courses should receive financial assistance, since it is their purpose to serve in the public health service. The provision of training stipends under the National Health Grants has met one of the basic needs. It is of interest that almost 5,000 health workers have been assisted through the Professional Training Grant during the first five years of the Program.

During the year, announcements inviting enquiries about appointments in public health and the opportunities for post-graduate training were published by the Committee in several of the medical journals. These announcements were effective in contacting physicians who were interested in considering a career in public health.

In surveying the situation in Canada, the Committee are encouraged by the increasing interest being shown in public health. The enrolment in the Schools of Hygiene for the coming term promises to be significantly higher.

The Committee are deeply indebted to the professors of preventive medicine, and the deans of faculties in various universities who have co-operated in displaying announcements of courses on bulletin boards and in making available to interested persons information about opportunities in public health.

REPORT OF THE VITAL AND HEALTH STATISTICS SECTION

H. G. Page, M.A., M.P.H., Secretary

IN ACCORDANCE WITH the decision of the Section Council at a meeting on March 7, 1952, the annual meeting of the Section was held in the Fort Garry Hotel, Winnipeg, June 16–18, as part of the fortieth annual meeting of the Canadian Public Health Association.

Mr. W. C. N. Reed, chairman of the Section, opened the first session on Monday, June 16, by welcoming the delegates and commenting on the wide representation at the meeting. He reminded members that, in keeping with its broadened interests, the name of the Section had been recently changed from "Vital Statistics Section" to "Vital and Health Statistics Section" and pointed to the Section program as an indication of the wider interest of the Section in health statistics. Three papers on administration and methods of enumeration of the Sickness Survey in the Prairie Provinces were presented by Dr. M. R. Elliott, Deputy Minister of Health, Winnipeg; Dr. Murray S. Acker, Assistant Deputy Minister of Public Health, Regina; and Miss M. Eileen Kennedy, Supervisor, Vital Statistics Division, Provincial Department of Public Health, Edmonton. Considerable discussion followed on comparative methods of enumeration, administrative costs and problems, methods employed in confirming illness diagnoses, etc. These three papers have since been published in the Canadian Journal of Public Health. Dr. T. A. Watson, Director of Cancer Services, Provincial Department of Health, Regina, presented a statistical paper on the results of cancer treatment in Saskatchewan, covering mainly the years from 1932–1944. The main points of the discussion which followed its presentation referred to the significance of survival rates and coverage of cancer cases.

Dr. A. H. Sellers was elected chairman of the Resolutions Committee, with power to select additional members. The Section Council members present were elected members of the Nominations Committee.

On Tuesday morning, June 17, a joint session was held with the Public Health Administration Section. The program consisted of a symposium on "Public Health Aspects of an Ageing Population," the objective of which was to present the background of chronic illness and some of the major problems associated with an ageing population. The very large attendance (180) at the meeting indicated the wide interest of every type of public health worker. The papers on the various aspects were as follows: The Changing Pattern of the Canadian Population, by H. G. Page, M.A., M.P.H.; The Psychiatric Aspects of Old Age, by William Forster, M.B., B.S., D.P.M.; The Mental-Hospital Aspect of an Ageing Population, by J. W. Fisher, Ph.D., and C. A. Roberts, M.D., C.M.; Institutional and Medical Care Aspects of an Ageing Population, by C. P. Feader; Hospital Home Care, by Isobel Black, B.Sc.; Social-Welfare Aspects of an Ageing Population, by S. P. McArton, M.A., D.S.W.; and Development of Public Health Statistics in an Ageing Population, by F. F. Harris. Due to pressure of time, discussion was limited. However, questions were asked about certain details of the Home Care Plan of the Victorian Order of Nurses and its applicability to areas outside larger cities, and particularly to rural areas.

Because of the interest in the symposium, arrangements were made with the editor to publish the seven papers in one issue of the Canadian Journal of Public Health, the June 1953 number.

At the session on Wednesday afternoon, June 18, two papers were presented and discussed at length: "Some Observations on the Use of Vital Statistics in

a Local Health Program", by Dr. M. Dantow, medical health officer of Saskatoon; and "Incidence of Hospitalization among Residents of Urban and Rural Communities", by Mr. G. W. Myers, executive director, Saskatchewan Hospital Services Plan, Department of Public Health, Regina. Considerable discussion followed the presentation of Dr. Dantow's paper regarding the influence of autopsy findings on the certification of cause of death. Some of the members believed that a study should be made of cases in which the autopsy findings would have changed the cause of death as entered by the certifying physician. The opinion was expressed that in the majority of cases the autopsy findings are available to the certifying physician and have been incorporated into the cause-of-death certification.

Discussion following Mr. Myers' paper related mainly to the advisability of classifying data for incorporated urban municipalities according to population size rather than according to their municipal status as a city, town, or village.

A business meeting followed the presentation of these papers. The following action was taken:

(a) The Section adopted the minutes of the last annual meeting as printed.

(b) The Section adopted a motion that the matter of the place and date of the 1953 meeting be referred to the incoming Section Council for decision, keeping in mind the decision taken at previous meetings that the section should meet, as a general rule, in conjunction with the annual meeting of the Association.

(c) The Secretary reported that at its March 7, 1952 meeting the Section Council agreed that there should be a complete re-examination of the Section's committee structure, membership, usefulness and terms of reference. The suggestion had been put forward that a member of the Section Council who is not presently a chairman of any of the Section Committees draft new terms of reference for each committee for consideration by the Section Council and the Section at their next meeting. The Secretary was directed to assist by making the necessary research into the Section files to ascertain the original terms of reference for each Committee. The Secretary reported that it had been impossible to date to proceed with this work but that draft terms of reference would be circulated to Section Council members as soon as prepared, for their consideration prior to the annual Section Council meeting.

(d) The Secretary also reported that the resolutions arising out of the 1951 annual meeting had been referred, for action, to the appropriate authorities and that all papers presented at the 1951 annual meeting had been accepted by the Editorial Board for printing in the Canadian Journal of Public Health.

(e) The following resolutions were adopted:

Resolution No. 1

WHEREAS no Canadian data on mortality by occupation or occupational group are now available;

AND WHEREAS such data would be useful in many fields of public health;

BE IT RESOLVED that this Section again urge the Dominion Bureau of

Statistics to consider ways and means by which mortality data by occupation and economic group may be made available, decennially, for study and assessment.

Resolution No. 2

WHEREAS the Expert Committee on Health Statistics of the World Health Organization has framed definitions of foetal death (stillbirth) and live birth which it has recommended for international adoption;

AND WHEREAS the proposed definitions differ in no essential details from definitions even now used in certain provinces of Canada as well as in Great Britain and the United States;

AND WHEREAS research into the causes and prevention of foetal death requires knowledge of the large number of such deaths which occur prior to the 28th week of gestation;

BE IT RESOLVED that the Vital and Health Statistics Section of the Canadian Public Health Association recommend the adoption in Canada of uniform definitions of live birth and foetal death (stillbirth) which incorporate the basic principles in the definitions proposed by the Expert Committee of WHO;

BE IT RESOLVED FURTHER that this Section recommend the extension of the requirements for the registration of foetal deaths (stillbirths) from 28 weeks' gestation as at present, to 20 weeks' gestation and that such period be the minimum incorporated in the national definition of foetal death.

Resolution No. 3

WHEREAS the infant mortality rate in Canada can be further substantially reduced;

AND WHEREAS such further reduction requires that attention be focussed on deaths among infants in the first month of life and especially on the mortality among infants prematurely born;

BE IT RESOLVED that this Section recommend to the Dominion Bureau of Statistics the publication annually of statistics on the numbers of infants prematurely born and the numbers of deaths (by cause) among such infants.

Resolution No. 4

WHEREAS this Section recognizes the high calibre of the papers presented at its sessions this year and their wider interest to public health workers throughout Canada;

BE IT RESOLVED that the Section seek early publication of these papers in the Journal of the Association;

BE IT RESOLVED FURTHER that the Section urge the Editorial Committee of the Journal to consider the publication of a special issue of the Journal to be devoted to the symposium on "Public Health Aspects of an Ageing Population".

Resolution No. 5

WHEREAS this Section is extremely fortunate in its choice of a continuing Secretary;

AND WHEREAS the success of this meeting has been due in no small measure to his efforts;

BE IT RESOLVED that this Section record its appreciation of the work of Mr. H. G. Page for the fine contribution which he continues to make to the progressive development of the Vital and Health Statistics Section of this Association.

(f) The following officers were elected for the year 1952–53: Chairman, Mr. T. E. Ashton; 1st Vice-Chairman, Dr. Paul Parrot; 2nd Vice-Chairman, Mr. G. W. Myers; Secretary, Mr. H. G. Page; Member of Section Council (retiring 1957), Mr. John Doughty.

The Section Council members for 1952–53 are therefore (year of retirement in brackets): Mr. W. C. N. Reed (1953), Past Chairman; Dr. F. S. Burke (1953), Mr. J. T. Marshall (1954), Dr. J. Wyllie (1955), Dr. A. H. Sellers (1956), and Mr. J. Doughty (1957).

RESOLUTIONS ADOPTED BY THE CANADIAN PUBLIC HEALTH ASSOCIATION AT THE FORTY-FIRST ANNUAL MEETING, HELD IN TORONTO ON OCTOBER 1 and 2, 1953

WHEREAS the National Health Grants have, during the past five years, been of significant value in the advancement of public health in Canada,

BE IT RESOLVED that the Canadian Public Health Association reaffirm its appreciation of the National Health Program and congratulate the Honourable the Minister of National Health and Welfare, and the Government of Canada, on the extension of this program by the addition of three new grants for maternal and child care, medical rehabilitation, and laboratory and radiological diagnostic facilities and services.

WHEREAS dental caries is an almost universal disease, affecting the health of the nation,

AND WHEREAS there is considerable evidence that the dental protection acquired in early life is carried over, in good measure, into adult years,

AND WHEREAS no detrimental effect has been demonstrable in those populations that have been using properly fluoridated water for seven years and longer,

BE IT RESOLVED that the Canadian Public Health Association recommends the fluoridation of community water supplies for the reduction of dental caries in those communities where there is at present an insufficient fluoride content for this purpose and where the procedure can be adequately controlled and supervised.

WHEREAS there is need for action to protect health and to conserve the usefulness of natural water courses,

BE IT RESOLVED that, in order to meet the problem of stream pollution in Canada, the Canadian Public Health Association request the Federal Government, in co-operation with the Provincial Governments, to give all possible

assistance in the examination of water courses, in order to determine the extent and sources of pollution and to provide remedial measures.

BE IT RESOLVED that the Executive Committee of the Canadian Public Health Association be asked to study affiliation with related organizations and to set up criteria for affiliation.

BE IT RESOLVED:

That the thanks of the Canadian Public Health Association be extended to the speakers who have taken part in the sessions of the Forty-first Annual Meeting, in particular the Honourable Paul Martin, Minister of National Health and Welfare; Dr. Edward G. McGavran, Dean of the School of Public Health, University of North Carolina; Dr. Philip E. Blackerby, Jr., Director of the Division of Dentistry, W. K. Kellogg Foundation; Mr. Walter F. Snyder, Executive Director, The National Sanitation Foundation; and Dr. M. R. Elliott, Deputy Minister of Health and Public Welfare, Province of Manitoba.

That the Association gratefully acknowledges the generous action of the administrative officers of the City of Toronto in making a contribution towards the expenses of this annual meeting.

That the Association express to the Management of the Royal York Hotel its appreciation of the excellent accommodation and services provided.

REPORT OF THE COMMITTEE ON NOMINATIONS

OFFICERS OF THE CANADIAN PUBLIC HEALTH ASSOCIATION 1953–1954

Honorary President: The Honourable J. H. A. Paquette, M.D., Minister of Health, Province of Quebec.

President: Mr. Theo. J. Lafreniere, P.Eng., Chief Engineer, Ministry of Health of Quebec, Montreal.

President-Elect: Dr. A. Somerville, Deputy Minister of Health for the Province of Alberta, Edmonton.

Vice-Presidents:

Dr. J. A. Melanson, Chief Medical Officer for the Province of New Brunswick, Fredericton.

Dr. L. A. Pequegnat, Medical Officer of Health, City of Toronto.

Miss Christine Livingston, Chief Superintendent, Victorian Order of Nurses, Ottawa.

Honorary Secretary:

Dr. William Mosley, Director, East York–Leaside Health Unit, Ontario.

Honorary Treasurer:

Dr. G. W. O. Moss, Public Health Associate, Connaught Medical Research Laboratories, University of Toronto.

NEWS

Saskatchewan

FOR 1953 the Department of Public Health is conducting an epidemiological survey of all poliomyelitis cases reported throughout the province. Special questionnaire forms on all paralytic and non-paralytic cases are being sent to the notifying medical practitioners. The purpose of the survey is to establish clearly the extent of paralytic poliomyelitis, the character of household, spread of infection, and the relationship of poliomyelitis to certain stress factors such as pregnancy, oropharyngal surgery, inoculations, and travel.

TWO SUBJECTS are being given high priority in educational activities of the Saskatchewan Department of Public Health. One is farm and home safety, the other is personnel recruiting. Leadership in both areas has been assigned to the Division of Health Education. It has been noted that in 1952 injuries resulting from accidents stood second among causes of hospitalization in Saskatchewan, with maternity cases in first place. According to the Saskatchewan Hospital Services Plan, which covers most of the population, 13,268 persons were admitted to hospitals in 1952 with injuries resulting from accidents. Hospital bills paid by the Plan on behalf of these patients totalled $1,108,984.40, with cost averaging $8.20 per patient day.

In an effort to overcome acute personnel shortages in all public health categories, the Department of Public Health has launched its first organized recruiting program, which will be continued indefinitely. Methods and media include attractive literature, press and radio interviews, programs, and advertising, orientation of guidance teachers, vocational leaders, clergy, and others to whom young persons go for vocational counsel. Health educators are holding meetings with local staffs of the National Employment Service to make departmental needs known and are using both films and discussion techniques in this aspect.

G. A. F. R. GIBSON, M.B., Ch.B., has recently been appointed Regional Medical Health Officer for the Weyburn-Estevan Health Region. Dr. Gibson was born in Edinburgh in 1916, received his M.B., Ch.B., from the University of Edinburgh in 1940, and began his surgical internship in that city following his graduation. He obtained his commission in the R.A.M.C. in March 1941, and spent his first few army months in England attached to Field Ambulance as general duties officer. The subsequent year, 1941–42, found him in the Hong Kong and Singapore Royal Artillery, where he was the regimental medical officer. Dr. Gibson was wounded and captured by the Japanese in Singapore early in 1942, and for the next three years was a P.O.W. in Malaya, Burma and Siam (Thailand). After this unfortunate experience, he was released in 1945, to become the British registrar at the Chulalongkorn Hospital, Bangkok. Demobilization came in January 1946, and Dr. Gibson returned to Edinburgh to complete his internship. He then joined the Colonial Medical Service in July, 1946, and left for Telok Anson, Malaya, to become the medical officer there. Returning to Scotland on a study leave in 1949, Dr. Gibson received his Diploma in Public Health from the University of Edinburgh in 1950. Again he left for the Far East and began his duties as health officer for the rural area, Singapore. In 1952, he became chief medical officer, Kelantan, Malaya. This was his last post before coming to Saskatchewan in October, 1953.

Manitoba

SIXTY-FOUR MEMBERS attended the first annual meeting of the Manitoba Public Health Association, held in Winnipeg on October 15 and 16 in conjunction with the Manitoba Hospital and Nursing Conference. The following officers were elected:

President: Dr. J. N. Scatliff, Medical Director, Red River Health Unit, Steinbach.

1st Vice-President: Dr. E. J. Rigby, Chief Health Inspector, Winnipeg Health Department.

2nd Vice-President: K. G. MacQuarrie, Consultant Sanitary Inspector, Provincial Department of Health and Public Welfare, Winnipeg.

Secretary-Treasurer: J. J. Courteau, Sanitary Inspector, St. Boniface Health Unit.

Chairman, Medical Health Officers: Dr. W. Watt, Medical Director, Neepawa Health Unit.

Chairman, Nursing Section: Miss S. Parker, Supervisor of Nurses, Winnipeg Health Department.

Chairman, Environmental Sanitation Section: Tom Lackie, Assistant Public Health Engineer, Provincial Department of Health and Public Welfare, Winnipeg.

APPROXIMATELY 1,400 DELEGATES, representing nine Manitoba hospital and nursing organizations, attended the annual Hospital and Nursing Conference, held in Winnipeg October 13–15. The general chairman of the conference was T. A. J. Cunnings, executive director of the Sanatorium Board of Manitoba. Participating organizations were: Associated Hospitals of Manitoba; Manitoba Association of Registered Nurses; Manitoba Women's Hospital Auxiliaries Association; Manitoba Public Health Association; Manitoba Association of Licensed Practical Nurses; Manitoba Division, Canadian Society of Radiological Technicians; Manitoba Branch, Canadian Society of Laboratory Technologists; Manitoba Dietetic Association, and the Canadian Association of Medical Record Librarians.

MISS MIRIAM SKALING has been appointed Librarian in the Provincial Department of Health and Public Welfare. Miss Skaling is a graduate in Arts of the University of Manitoba and in Library Science of the University of Toronto. She served on the staff at United College (University of Manitoba) for two years, and in the medical library, University of Alberta, for two years. She joined the health department in July, 1952.

DR. R. SUBRAMANIAN, Deputy Director of Health Services for India, was a recent guest of the Provincial Department of Health. He is visiting Canada on a three-month Colombo Plan fellowship, studying public health organization and administration, with particular reference to rural health problems.

Ontario

TEN PUBLIC HEALTH DEPARTMENTS and health units in Ontario now have the services of the eleven sanitary inspectors who recently completed Ontario's first training course for sanitary inspectors. The course, which occupied a period of thirty-six weeks, consisted both of theory and practical work in the field. On the completion of the course, the students wrote the examinations for the Certificate in Sanitary Inspection (Canada), conducted by the Canadian Public Health Association. The certificates were presented to the candidates by Dr. John T. Phair, Deputy Minister of Health of Ontario, at a graduation ceremony held in the Ryerson Institute, Toronto, on October 23.

The graduates are joining health departments in Ottawa, Peterborough, Scarborough, Etobicoke, and Hamilton, as well as health units in the Kenora-Keewatin-Dryden area, Peel County, Northumberland-Durham, York County, Fort William and District, and East York-Leaside.

New Brunswick

THE NEW BRUNSWICK-PRINCE EDWARD ISLAND BRANCH of the Canadian Public Health Association held its second meeting in Fredericton on October 27, with the president, Dr. J. A. Melanson, presiding. The members were welcomed by the Honourable J. F. McInerney, M.D., Minister of Health and Social Services for the Province of New Brunswick. An outstanding attendance of 103 members was recorded. The guest speaker at the luncheon of the Association members was Dr. C. L. Gass, of Tatamagouche, N.S., who developed in an interesting manner psychiatric services in public health in New Brunswick. Another highlight of the meeting was the address of Dr. C. B. Stewart, Professor of Epidemiology, Dalhousie University, who reviewed health insurance studies in Canada. The officers of the Association for the ensuing year are as follows:

President: Dr. O. H. Curtis, Deputy Minister of Health and Welfare, Prince Edward Island.

1st Vice-President: Mr. A. J. Cameron, Provincial Sanitary Engineer, New Brunswick.

2nd Vice-President: Dr. A. M. Clarke, Assistant Chief Medical Officer, New Brunswick Department of Health and Social Services.

Secretary-Treasurer: Miss Dorothy Cox, Public Health Nurse, Department of Health and Welfare, Prince Edward Island.

Additional members of the Executive: Miss Mona Wilson, Director of Public Health Nursing, Prince Edward Island; and Mr. J. Emile LeBlanc, Secretary, Restigouche Sub-District Board of Health, New Brunswick.

THE ANNUAL FALL CONFERENCE of the Department took place on Wednesday, October 28, at Fredericton. Dr. J. A. Melanson, Chief Medical Officer, was chairman.

THE PUBLIC HEALTH NURSES in the Department of Health and Social Services held their annual three-day meeting in Fredericton. Miss M. E. Hunter, Director of Public Health Nursing for the Province, presided.

THE SANITARY INSPECTORS employed by the various Boards of Health in the Province held a one-day meeting in Fredericton. Mr. Alwyn J. Cameron, Provincial Sanitary Engineer, and Mr. K. R. Thompson, Assistant Provincial Sanitary Engineer, presided.

The group was addressed by Dr. J. A. Melanson, Chief Medical Officer.

JAMES M. O. WHEATLEY, M.A., has been appointed for 1953–54 as Survey Research Fellow in the Department of Health and Social Services. Mr. Wheatley, who last year completed course work for the degree of Ph.D. in philosophy at the University of Toronto, will bring up to date the 1951 Report of New Brunswick's Health Survey Committee.

DR. J. A. MELANSON, New Brunswick's Chief Medical Officer, was elected Vice-President of the Canadian Public Health Association, at the forty-first annual meeting held in Toronto on October 1 and 2. Other New Brunswick representatives attending the meeting were Dr. J. R. Allanach of Woodstock, District Medical Health Officer for York, Carleton, and Victoria Counties and the City of Fredericton; Miss Florence Swan, Nutritionist with the Department of Health and Social Services; and Mr. J. Alwyn Cameron, Sanitary Engineer for the Department of Health and Social Services.

DR. J. R. MAYERS, D.P.H., formerly of London, England, has assumed the post of Director of Maternal and Child Health in the Department of Health and Social Services.

AT THE FIRST COMBINED staff conference of the Mental Health Division this fall, Dr. Robert Jones, Professor of Psychiatry, Dalhousie University, spoke on "The Community Clinic, Its Successes and Failures." In addition to personnel of the Mental Health Division, many members of the staff of the Provincial Hospital were also present. During his visit to Saint John, Professor John also addressed the local branch of the Canadian Mental Health Association. He also spoke to the Parents of Mentally Retarded Children Association on the subject of mental defect.

THE FIRST OF A SERIES of research conferences to be held by the psychologists of the Provincial Mental Health Division was held in Saint John on September 25. At these meetings, various research projects currently in progress are discussed. At the last meeting, Dr. Marian Turski, psychiatrist at the Provincial Hospital, and Dr. Lynn Newbigging, Assistant Professor of Psychology at the University of New Brunswick, were present as visiting participants.

A QUESTIONNAIRE SURVEY of all schools in New Brunswick is presently under way in an endeavour to assess the extent and distribution of mental retardation in the Provincial schools. A questionnaire on this subject is also being sent to public health nurses, Children's Aid Society workers, etc. in order to establish the number of retardates who have never come to the attention of the authorities.

THE SCIENTIFIC PLANNING COMMITTEE of the Canadian Mental Health Association (Provincial Branch) is presently being formed under the chairmanship of Dr. E. G. Poser. This Committee proposes to sponsor various community projects, one of which will be in collaboration with the Parent Education Committee of the Provincial Home and School Association. In the course of this program, each Home and School Association will be asked to appoint one representative who will meet with other representatives, under the direction of a "leader" who will stimulate discussion on several topics related to mental health and education. About twelve such discussion groups will be set up, and after the training period, each representative is expected to lead similar discussions in his own Home and School Association.

MRS. FREDA VICKERY, Supervisor of Psychiatric Social Work in the Mental Health Division, attended an Institute sponsored by the Eastern Canada Branch of the American Association of Medical Social Workers. The meetings were held in Montreal, October 22–24, and dealt with the subject of "Teamwork In the Medical Setting".

Nova Scotia

DR. F. JOHN G. LISHMAN, who recently resigned as director of the South Central Health Unit at Kamloops, British Columbia, was appointed on September 1 to the position of Divisional Medical Health Officer with the Department of Public Health of Nova Scotia.

Dr. Lishman was born at Teneriffe, Canary Islands, where his father was engaged in medical practice. He took his medical course at University College Hospital, University of London, during the period 1924–1929. He later attended the London School of Hygiene and Tropical Diseases. In England, Dr. Lishman held a number of responsible appointments, both hospital and public health, before coming to Canada in 1950.

Presently, Dr. Lishman is taking a refresher course in tuberculosis at the Nova Scotia Sanatorium, Kentville, Nova Scotia. In the spring, on the completion of this course, he will take over the direction of the Cobequid Division, which comprises the counties of Cumberland and Colchester, with headquarters in Truro.

EMPLOYMENT SERVICE

Advertisements regarding "positions available" and "personnel available" will be published in from one to three consecutive issues, depending upon the requirements of the agency or person concerned. They are limited to seventy words or less, with a confidential box number if desired. There is no charge for this service to members of the Association. Health agencies are charged a flat rate of $10.00 for the advertisements (up to four consecutive issues) and for the service. The rate for non-members is $5.00. The service includes confidential clearing of information between prospective employer and employee if desired.

Qualified Sanitary Inspectors required by the City of Ottawa Health Department. Apply in writing, stating experience and qualifications and salary expected, to the Secretary, Board of Health, Transportation Building, Ottawa. 9/

Public Health Veterinarian required by the Bruce County Health Unit. Minimum salary $4,500, with allowance for experience. Pension and Blue Cross plans available. Car allowance 8¢ per mile. Apply to T. H. Alton, Secretary-Treasurer, Bruce County Health Unit, Walkerton, Ontario.

Professor of Preventive Medicine: Applications are invited for the position of Professor of Preventive Medicine in the Faculty of Medicine, University of Ottawa. Requirements: M.D., with specialization in Preventive Medicine and preferably with teaching experience. Write full details to Box 30, Canadian Public Health Association, 150 College Street, Toronto 5, Ontario.

Wanted by the City of Windsor: One qualified Public Health Supervisor, salary $3,380 to $3,860, and one Public Health Nurse, salary $2,860 to $3,340, to complete nursing establishment of Director, 2 supervisors, and 23 nurses. Apply to Board of Health, 2090 Wyandotte Street East, Windsor, Ontario. Working conditions include five-day week, sick leave, pension, Blue Cross, medical and surgical care, and starting salary is based on experience. 10/

Sanitary Engineer: Applicants to have Civil Engineering degree from recognized university, and also Master of Science or Master of Applied Science degree. Write, stating age, experience, and salary required, to the Director of Public Health and Welfare, City Hall, Halifax, Nova Scotia. 11/

Twenty-First Annual Christmas Meeting

LABORATORY SECTION

Canadian Public Health Association

Royal York Hotel
and Hospital for Sick Children
TORONTO

Monday and Tuesday, Dec. 14 and 15, 1953